

1 DIVLTQSPAS LAVSLGQRAT MSCRAGESVD IFGVGFLHWY QOKPGQPPKL
 51 LIYRASNLES GIPVRFSGTG SRTDFTLIID PVEADDVATY YCQQTNEDPY
 101 TFGGGTKLEI KGGGGSGGGG SGGGGSGGGG SGGGGSGGGG SEVOLQOSGA
 151 ELVEPGASVK LSCTASGFNI KDTYMHWVKQ RPEQGLEWIG RIDPANGNSK
 201 YVPKFQGKAT ITADTSSNTA YLQLTSLTSE DTAVYYCAPF GYYVSDYAMA
 251 YWGOGTSVTV SS (SEQ ID NO:1)

FIG._1A

1 GACATCGTCC TGACCCAGAG CCCGGCAAGC CTGGCTGTTT CCCTGGGCCA
 51 GCGTGCCACT ATGTCCTGCA GAGCGGGTGA GTCTGTTGAC ATTTTCGGTG
 101 TCGGTTTTCT GCACCTGGTAC CAACAGAAAC CGGGTCAGCC GCCAAAACGT
 151 CTGATCTATC GTGCTTCTAA CCTGGAGTCC GGCATCCC GG TACGTTCTC
 201 CGGTACTGGC TCTCGTACTG ATTTTACCCCT GATTATCGAC CCGGTGGAAG
 251 CAGACGATGT TGCCACCTAC TATTGCCAGC AGACCAACGA GGATCCGTAC
 301 ACCTTCGGTG GCGGTACTAA ACTGGAGATC AAAGGCGGTG GTGGTTCTGG
 351 TGGTGGTGGT AGCGGGCGGCG GTGGTAGC GG TGGCGGTGGC AGCGGTGGTG
 401 GTGGCTCTGG TGGCGGTGGC TCTGAAGTGC AGCTGCAGCA GTCCGGTGCG
 451 GAGCTCGTTG AACCGGGCGC TTCTGTGAAA CTGTCTGCA CTGCATCTGG
 501 TTTCAACATT AAGGACACCT ACATGCAC TG GGTGAAACAA CGCCCGGAAC
 551 AGGGTCTGGA GTGGATCGGT CGCATCGA TC CGGCTAACGG TAACAGCAA
 601 TACGTGCCAA AATTCCAGGG TAAAGCAACC ATCACTGCTG ATACCTCCTC
 651 TAACACTGCT TACCTGCAGC TGACTTCCCT GACTAGCGAA GACACCGCGG
 701 TTTATTACTG CGCTCCGTTC GGCTACTATG TCAGCGATTA CGCAATGGCC
 751 TACTGGGTC AGGGCACCTC TGTTACCGTT TCTAGC (SEQ ID NO:3)

FIG._1B

263 TPVSEKQL AEVVANTITP LMKAQSVPGM AVAVIYQGKP
 301 HYYTFGKADI AANKPVTPQT LFELGSISKT FTGVLGGDAI ARGEISLDDA
 351 VTRYWPQLTG KQWQGIRMLD LATYTAGGLP LQVPDEVTDN ASLLRFYQNW
 401 QPQWKPGTTR LYANASIGLF GALAVKPSGM PYEQAMTTRV LKPLKLDHTW
 451 INVPKAEEAH YAWGYRDGKA VRVSPGMLDA QAYGVKTNVQ DMANWVMANM
 501 APENVADASL KQGIALAQSR YWRIGSMYQG LGWEMLNWV EANTVVETSF
 551 GNVVALAPLPV AEVNPPAPPV KASWVHKTGS TGGFGSYVAF IPEKQIGIVM
 602 LANTSYPNPA RVEAAYHILE ALQ (SEQ ID NO:11)

FIG._1C

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1 ACACCGGTGT CAGAAAAACA GCTGGCGGAG GTGGTCGCGA A TACGATTAC
 51 CCCGCTGATG AAAGCCCAGT CTGTTCCAGG CATGGCGGTG GCCGTTATT
 101 ATCAGGGAAA ACCGCACATAT TACACATTG GCAAGGCCGA TATCGCGGCG
 151 AATAAACCCG TTACGCCTCA GACCCTGTTG GAGCTGGGTT C TATAAGTAA
 201 AACCTTCACC GGCGTTTAG GTGGGGATGC CATTGCTCGC GGTGAAATT
 251 CGCTGGACGA TGCAGGTGAC AGATACTGGC CACAGCTGAC GGGCAAGCAG
 301 TGGCAGGGTA TTCGTATGCT GGATCTCGCC ACCTACACCG C TGGCGGCCT
 351 GCCGCTACAG GTACCGGATG AGGTACCGA TAACGCCTCC C TGCTGCGCT
 401 TTTATCAAAA CTGGCAGCCG CAGTGGAAAGC CTGGCACAAAC GCGTCTTAC
 451 GCCAACGCCA GCATCGGTCT TTTTGGTGCG CTGGCGGTCA AACCTTCTGG
 501 CATGCCCTAT GAGCAGGCCA TGACGACGCC GGTCTTAAG C CGCTCAAGC
 551 TGGACCATAAC CTGGATTAAC GTGCCGAAAG CGGAAGAGGC GCATTACGCC
 601 TGGGGCTATC GTGACGGTAA AGCGGTGCGC GTTTCGCCGG GTATGCTGGA
 651 TGCAACAAGCC TATGGCGTGA AAACCAACGT GCAGGATATG GCGAACTGGG
 701 TCATGGCAAA CATGGCGCCG GAGAACGTTG CTGATGCCTC ACTTAAGCAG
 751 GGCATCGCGC TGGCGCAGTC GCGCTACTGG CGTATCGGGT CAATGTATCA
 801 GGGTCTGGGC TGGGAGATGC TCAACTGGCC CGTGGAGGCC AACACGGTGG
 851 TCGAGACGAG TTTGGTAAT GTAGCACTGG CGCCGTTGCC CGTGGCAGAA
 901 GTGAATCCAC CGGCTCCCCC GGTCAAAGCG TCCTGGGTCC ATAAAACGGG
 951 CTCTACTGGC GGGTTTGGCA GCTACGTGGC CTTTATTCCCT GAAAAGCAGA
 1001 TCGGTATTGT GATGCTCGCG AATACAAGCT ATCCGAACCC GGCACGCGTT
 1051 GAGGCGGCAT ACCATATCCT CGAGGCGCTA CAG (SEQ ID NO:12)

FIG._ 1D

1 DIVLTQSPAS LAVSLGQRAT MSCRAGESVD IFGVGFLHWY QOKPGOPPKL
 51 LIYRASNLES GIPVRFSGTG SRTDFTLIID PVEADDVATY YCQQTNEDPY
 101 TFGGGTKLEI KGGGGSGGGG SGGGGSGGGG SGGGGSGGGG SEVOLOQSGA
 151 ELVEPGASVK LSCTASGFNI KDTYMHWVKQ RPEOGLEWIG RIDPANGNSK
 201 YVPKFQGKAT ITADTSSNTA YLQLTSLTSE DTAVYYCAPF GYYVSDYAMA
 251 YWGQGTSVTV SSTPVSEKQL AEVANTITP LMKAQSVPGM AVAVIYQGKP
 301 HYYTFGKADI AANKPVTPQT LFELGSISKT FTGVLGGDAI ARGEISLDDA
 351 VTRYWPQLTG KQWQGIRMLD LATYTAGGLP LQVPDEVTDN ASLLRFYQNW
 401 QPQWKPGTTR LYANASIGLF GALAVKPSGM PYEQAMTTRV LKPLKLDHTW
 451 INVPKAEEAH YAWGYRDGKA VRVSPGMLDA QAYGVKTNVQ DMANWVMANM
 501 APENVADASL KQGIALAQSR YWRIGSMYQG LGWEMLNWPV EANTVVETSF
 551 GNVALAPLPV AEVNPPAPPV KASWVHKTGS TGGFGSYVAF IPEKQIGIVM
 601 LANTSYPNPA RVEAAYHILE ALQ (SEQ ID NO:2)

FIG._ 1E

1 GACATCGTCC TGACCCAGAG CCCGGCAAGC CTGGCTGTT CCCTGGCCA
 51 GCGTGCCTACT ATGTCCTGCA GAGCGGGTGA GTCTGTTGAC ATTTTCGGTG
 101 TCGGTTTTCT GCACCTGGTAC CAACAGAAC CGGGTCAGCC GCCAAAATG
 151 CTGATCTATC GTGCTTCTAA CCTGGAGTCC GGCATCCCGG TACGTTCTC
 201 CGGTACTGGC TCTCGTACTG ATTTTACCCCT GATTATCGAC CCGGTGGAAG
 251 CAGACGATGT TGCCACCTAC TATTGCCAGC AGACCAACGA GGATCCGTAC
 301 ACCTTCGGTG GCGGTACTAA ACTGGAGATC AAAGGCGGTG GTGGTTCTGG
 351 TGGTGGTGGT AGCGGCGGCG GTGGTAGCGG TGGCGGTGGC AGCGGTGGTG
 401 GTGGCTCTGG TGGCGGTGGC TCTGAAGTGC AGCTGCAGCA GTCCGGTGCG
 451 GAGCTCGTTG AACCGGGCGC TTCTGTGAAA CTGCTTGCA CTGCATCTGG
 501 TTTCAACATT AAGGACACCT ACATGCACTG GGTGAAACAA CGCCCGGAAC
 551 AGGGTCTGGA GTGGATCGGT CGCATCGATC CGGCTAACCG TAACAGCAA
 601 TACGTGCCAA AATTCCAGGG TAAAGCAACC ATCACTGCTG ATACCTCCTC
 651 TAACACTGCT TACCTGCAGC TGACTTCCCT GACTAGCGAA GACACCGCGG
 701 TTTATTACTG CGCTCCGTTC GGCTACTATG TCAGCGATT CGCAATGGCC
 751 TACTGGGTC AGGGCACCTC TGTTACCGTT TCTAGCACAC CGGTGTCAGA
 801 AAAACAGCTG GCGGAGGTGG TCGCGAATAC GATTACCCCG CTGATGAAAG
 851 CCCAGTCTGT TCCAGGCATG GCGGTGGCCG TTATTATCA GGGAAAACCG
 901 CACTATTACA CATTGGCAA GGCGATATC GCGCGAATA AACCCGTTAC
 951 GCCTCAGACC CTGTTCGAGC TGGGTTCTAT AAGTAAAACC TTCACCGCG
 1001 TTTTAGGTGG GGATGCCATT GCTCGCGGTG AAATTCGCT GGACGATGCG
 1051 GTGACCAGAT ACTGGCCACA GCTGACGGGC AAGCAGTGGC AGGGTATTGCG
 1101 TATGCTGGAT CTCGCCACCT ACACCGCTGG CGGCCTGCCG CTACAGGTAC
 1151 CGGATGAGGT CACGGATAAC GCCTCCCTGC TGCGCTTTA TCAAAACTGG
 1201 CAGCCGCAGT GGAAGCCTGG CACAACCGGT CTTACGCCA ACGCCAGCAT
 1251 CGGTCTTTTG GGTGCGCTGG CGGTCAAACC TTCTGGCATG CCCTATGAGC
 1301 AGGCCATGAC GACCGGGTC CTTAAGCCGC TCAAGCTGGA CCATACCTGG
 1351 ATTAACGTGC CGAAAGCGGA AGAGGCGCAT TACGCCCTGG GCTATCGTGA
 1401 CGGTAAAGCG GTGCGCTTT CGCCGGGTAT GCTGGATGCA CAAGCCTATG
 1451 GCGTAAAAC CAACGTGCAG GATATGGCGA ACTGGGTCAT GGCAAACATG
 1501 GCGCCGGAGA ACGTTGCTGA TGCCTCACTT AAGCAGGGCA TCGCGCTGGC
 1551 GCAGTCGCGC TACTGGCGTA TCGGGTCAAT GTATCAGGGT CTGGGCTGGG
 1601 AGATGCTCAA CTGGCCCGTG GAGGCCAACA CGGTGGTCGA GACGAGTTTT
 1651 GGTAATGTAG CACTGGCGCC GTTGGCCGTG GCAGAAGTGA ATCCACCGGC
 1701 TCCCCCGGTC AAAGCGTCCT GGGTCCATAA AACGGGCTCT ACTGGCGGGT
 1751 TTGGCAGCTA CGTGGCCTTT ATTCTGAAA AGCAGATCGG TATTGTGATG
 1801 CTCGCGAATA CAAGCTATCC GAACCCGGCA CGCGTTGAGG CGGCATACCA
 1851 TATCCTCGAG GCGCTACAG (SEQ ID NO:4)

FIG._1F

1 DIVLTQSPAS LSVSLGORAT MSCRAGESVD IFGVGFLHWY QOKPGQPPKL
 51 LIYRASNLES GIPVRFSGTG SGTDFTLIID PVEADDVATY YCQQTNEDPY
 101 TFGGGTKLEI KGGGGSGGGG SGGGGSGGGG SGGGGSGGGG SEVOLQOSGA
 151 ELVEPGASVK LSCTASGFNI KDTYMHWVKQ RPEQGLEWIG RIDPANGNSK
 201 YVPKFQGKAT ITADTSSNTA YLQLTSLTSE DTAVYYCAPP GYYVSDYAMA
 251 YWGQGTSVTV SS (SEQ ID NO:5)

FIG._2A

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1 GACATCGTCC TGACCCAGAG CCCGGCAAGC CTGTCCTGTT CCCTGGGCCA
 51 GCGTGCCTACT ATGTCCTGCA GAGCGGGTGA GTCTGTTGAC ATTTTCGGTG
 101 TCGGTTTCT GCACGGTAC CAACAGAAAC CGGGTCAGCC GCCAAAACTG
 151 CTGATCTATC GTGCTTCTAA CCTGGAGTCC GGCATCCCAG TACGTTCTC
 201 CGGTACTGGC TCTGGTACTG ATTTTACCCCT GATTATCGAC CCGGTGGAAG
 251 CAGACGATGT TGCCACCTAC TATTGCCAGC AGACCAACGA GGATCCGTAC
 301 ACCTTCGGTG GCGGTACTAA ACTGGAGATC AAAGGCGGTG GTGGTTCTGG
 351 TGGTGGTGGT AGCGGTGGCG GTGGTAGCAG TGGCGGTGGC AGCGGTGGTG
 401 GTGGCTCTGG TGGCGGTGGC TCTGAAGTGC AGCTGCAGCA GTCCGGTGGC
 451 GAGCTCGTTG AACCGGGCGC TTCTGTAAA CTGTCCTGCA CTGCATCTGG
 501 TTTCAACATT AAGGACACCT ACATGCACTG GGTGAAACAA CGCCCGGAAC
 551 AGGGTCTGGA GTGGATCGGT CGCATCGATC CGGCTAACGG TAACAGCAA
 601 TACGTGCCAA AATTCCAGGG TAAAGCAACC ATCACTGCTG ATACCTCCTC
 651 TAACACTGCT TACCTGCAGC TGACTTCCCT GACTAGCGAA GACACCGCGG
 701 TTTATTACTG CGCTCCGTTC GGCTACTATG TCAGCGATTA CGCAATGGCC
 751 TACTGGGGTC AGGGCACCTC TGTTACCGTT TCTAGC (SEQ ID NO:6)

FIG._2B

262 TPVSEKQL AEVVANTITP LMAAQSVPGM AVAVIYQGKP
 301 HYYTFGKADI AANKPVTPQT LFELGSISKT FTGVLGGDAI ARGEISLDDA
 351 VTRYWPQLTG KQWQGIRMLD LATYTAGGLP LQVPDEVTDN ASLLRFYQNW
 401 QPQWKPGTTR LYANASTIGLF GALAVKPSGM PYEQAMTTRV LKPLKLDHTW
 451 INVPKAEEAH YAWGYRDGKA VRVSPGMLDA QAYGVKTNVQ DMANWVMANM
 501 APENVADASL KQGIALAQSR YWRIGSMYQG LGWEMLNWPV EANTVVETSF
 551 GNVVALAPLPV AEVNPPAPPV KASVWVKHTGS TGGFGAYVAF IPEKQIGIVM
 601 LANTSYPNPA RVEAAYHILE ALQ (SEQ ID NO:13)

FIG._3

1 DIVLTQSPAS LSVSLGORAT MSCRAGESVD IFVGFLHWY QOKPGOPPKL
 51 LIYRASNLES GIPVRFSGTG SGTDFTLIIID PVEADDVATY YCQQTNEDPY
 101 TFGGGTKLEI KGGGGSGGGG SGGGGSGGGG SGGGGSGGGG SEVOLQOSGA
 151 ELVEPGASVK LSCTASGFNI KDTYMHWVKQ RPEQGLEWIG RIDPANGNSK
 201 YVPKFQGKAT ITADTSSNTA YLQLTSLTSE DTAVYYCAPF GYYVSDYAMA
 251 YWGQGTSVTV SSTPVSEKQL AEVVANTITP LMKAQSVPGM AVAVIYQGKP
 301 HYYTFGKADI AANKPVTPQT LFELGSISKT FTGVLGGDAI ARGEISLDDA
 351 VTRYWPQLTG KQWQGIRMLD LATYTAGGLP LQVPDEVTDN ASLLRFYQNW
 401 QPQWKPGTTR LYANASTIGLF GALAVKPSGM PYEQAMTTRV LKPLKLDHTW
 451 INVPKAEEAH YAWGYRDGKA VRVSPGMLDA QAYGVKTNVQ DMANWVMANM
 501 APENVADASL KQGIALAQSR YWRIGSMYQG LGWEMLNWPV EANTVVETSF
 551 GNVVALAPLPV AEVNPPAPPV KASVWVKHTGS TGGFGSYVAF IPEKQIGIVM
 601 LANTSYPNPA RVEAAYHILE ALQ (SEQ ID NO:7)

FIG._4A

1 GACATCGTCC TGACCCAGAG CCCGGCAAGC CTGTCTGTTT CCCTGGGCCA
 51 GCGTGCCACT ATGTCCTGCA GAGCGGGTGA GTCTGTTGAC ATTTTCGGTG
 101 TCGGTTTTCT GCACCTGGTAC CAACAGAAAC CGGGTCAGCC GCCAAAAGTG
 151 CTGATCTATC GTGCTTCTAA CCTGGAGTCC GGCATCCCAGG TACGTTCTC
 201 CGGTACTGGC TCTGGTACTG ATTTTACCCCT GATTATCGAC CCGGTGGAAG
 251 CAGACGATGT TGCCACCTAC TATTGCCAGC AGACCAACGA GGATCCGTAC
 301 ACCCTCGGTG CGGGTACTAA ACTGGAGATC AAAGGCGGTG GTGGTTCTGG
 351 TGGTGGTGGT AGCGGTGGCG GTGGTAGCGG TGGCGGTGGC AGCGGTGGTG
 401 GTGGCTCTGG TGGCGGTGGC TCTGAAGTGC AGCTGCAGCA GTCCGGTGCG
 451 GAGCTCGTTG AACCGGGCGC TTCTGTGAAA CTGTCTTGCA CTGCATCTGG
 501 TTTCAACATT AAGGACACCT ACATGCAGTC GGTGAAACAA CGCCCGGAAC
 551 AGGGTCTGGA GTGGATCGGT CGCATCGATC CGGCTAACGG TAACAGCAAA
 601 TACGTGCCAA AATTCCAGGG TAAAGCAACC ATCACTGCTG ATACCTCCTC
 651 TAACACTGCT TACCTGCAGC TGACTTCCCT GACTAGCGAA GACACCGCGG
 701 TTTATTACTG CGCTCCGTTC GGCTACTATG TCAGCGATTA CGCAATGGCC
 751 TACTGGGGTC AGGGCACCTC TGTTACCGTT TCTAGCACAC CGGTGTCAGA
 801 AAAACAGCTG GCGGAGGTGG TCGCGAATAC GATTACCCCG CTGATGAAAG
 851 CCCAGTCTGT TCCAGGCATG GCGGTGGCCCG TTATTATCA GGGAAAACCG
 901 CACTATTACA CATTGGCAA GGCGATATC GCGCGAATA AACCCGTTAC
 951 GCCTCAGACC CTGTTCGAGC TGGGTTCTAT AAGTAAAACC TTCACCGCGG
 1001 TTTTAGGTGG GGATGCCATT GCTCGCGGTG AAATTCGCT GGACGATGCG
 1051 GTGACCAGAT ACTGGCCACA GCTGACGGGC AAGCAGTGGC AGGGTATTG
 1101 TATGCTGGAT CTCGCCACCT ACACCGCTGG CGGCCTGCGG CTACAGGTAC
 1151 CGGATGAGGT CACGGATAAC GCCTCCCTGC TGCGCTTTA TCAAAACTGG
 1201 CAGCCGCAGT GGAAGCCTGG CACAACCGT CTTTACGCCA ACGCCAGCAT
 1251 CGGTCTTTT GGTGCGCTGG CGGTCAAACCC TTCTGGCATG CCCTATGAGC
 1301 AGGCCATGAC GACCGGGGTC CTTAAGCCGC TCAAGCTGGA CCATACCTGG
 1351 ATTAACGTGC CGAAAGCGGA AGAGGCGCAT TACGCCCTGGG GCTATCGTGA
 1401 CGGTAAAGCG GTGCGCGTT CGCCGGGTAT GCTGGATGCA CAAGCCTATG
 1451 GCGTAAAAAC CAACGTGCAG GATATGGCGA ACTGGGTCAT GGCAAACATG
 1501 GCGCCGGAGA ACGTTGCTGA TGCCCTCACTT AAGCAGGGCA TCGCGCTGGC
 1551 GCAGTCGCGC TACTGGCGTA TCGGGTCAAT GTATCAGGGT CTGGGCTGGG
 1601 AGATGCTCAA CTGGCCCGTG GAGGCCAACCA CGGTGGTCGA GACGAGTTTT
 1651 GGTAATGTAG CACTGGCGCC GTTGGCCCGTG GCAGAAGTGA ATCCACCGGC
 1701 TCCCCCGGTC AAAGCGTCCT GGGTCCATAA AACGGGCTCT ACTGGCGGGT
 1751 TTGGCAGCTA CGTGGCCTTT ATTCTGAAA AGCAGATCGG TATTGTGATG
 1801 CTCGCGAATA CAAGCTATCC GAACCCGGCA CGCGTTGAGG CGGCATACCA
 1851 TATCCTCGAG GCGCTACAG (SEQ ID NO:9)

FIG._4B

1 DIVLTQSPAS LSVSLGQRAT MSCRAGESVD IFGVGFLHWY QQKPGQPPKL
51 LIYRASNLES GIPVRFSGTG SGTDFTLIID PVEADDVATY YCQOTNEDPY
101 TFGGGTKLEI KGGGGSGGGG SGGGGSGGGG SGGGGSGGGG SEVOLQOSGA
151 ELVEPGASVK LSCTASGFNI KDTYMHWVKQ RPEQGLEWIG RIDPANGNSK
201 YVPKFQGKAT ITADTSSNTA YLQLTSLTSE DTAVYYCAPF GYYVSDYAMA
251 YWGQGTSVTV SSTPVSEKQL AEVWANTITP LMAAQSVPGM AVAVIYQGKP
301 HYYTFGKADI AANKPVTPQT LFELGSISKT FTGVLGDDAI ARGEISLDDA
351 VTRYWPQLTG KQWQGIRMLD LATYTAGGLP LQVPDEVTDN ASLLRFYQNW
401 QPQWKPGTTR LYANASIGLF GALAVKPSGM PYEQAMTTRV LKPLKLDHTW
451 INVPKAEEAH YAWGYRDGKA VRVSPGMLDA QAYGVKTNVQ DMANWVMANM
501 APENVADASL KQGIALAQSR YWRIGSMYQG LGWEMLNWPV EANTVVETSF
551 GNVVALAPLPV AEVNPPAPPV KASWVHKTGS TGGFGAYVAF IPEKQIGIVM
601 LANTSYPNPA RVEAAYHILE ALQ (SEQ ID NO:8)

FIG._4C

1 GACATCGTCC TGACCCAGAG CCCGGCAAGC CTGTCTGTTT CCCTGGGCCA
 51 GCGTGCCTACT ATGTCCTGCA GAGCGGGTGA GTCTGTTGAC ATTTTCGGTG
 101 TCGGTTTCT GCACGGTAC CAACAGAAAC CGGGTCAGCC GCCAAAACGTG
 151 CTGATCTATC GTGCTTCTAA CCTGGAGTCC GGCATCCCGG TACGTTCTC
 201 CGGTACTGGC TCTGGTACTG ATTTTACCCCT GATTATCGAC CCGGTGGAAG
 251 CAGACGATGT TGCCACCTAC TATTGCCAGC AGACCAACGA GGATCCGTAC
 301 ACCTTCGGTG GCGGTACTAA ACTGGAGATC AAAGGCGGTG GTGGTTCTGG
 351 TGGTGGTGGT AGCGGTGGCG GTGGTAGCGG TGGCGGTGGC AGCGGTGGTG
 401 GTGGCTCTGG TGGCGGTGGC TCTGAAGTGC AGCTGCAGCA GTCCGGTGGC
 451 GAGCTCGTTG AACCGGGCGC TTCTGTGAAA CTGTCTTGCA CTGCATCTGG
 501 TTTCAACATT AAGGACACCT ACATGCACTG GGTGAAACAA CGCCCGGAAC
 551 AGGGTCTGGA GTGGATCGGT CGCATCGATC CGGCTAACGG TAACAGCAA
 601 TACGTGCCAA AATTCCAGGG TAAAGCAACC ATCACTGCTG ATACCTCC
 651 TAACACTGCT TACCTGCAGC TGACTTCCT GACTAGCGAA GACACCGCGG
 701 TTTATTACTG CGCTCCGTTG GGCTACTATG TCAGCGATTA CGCAATGGCC
 751 TACTGGGTC AGGGCACCTC TGTACCGTT TCTAGCACAC CGGTGTCAGA
 801 AAAACAGCTG GCGGAGGTGG TCGCGAATAC GATTACCCCG CTGATGGCGG
 851 CCCAGTCTGT TCCAGGCATG GCGGTGGCCG TTATTTATCA GGGAAAACCG
 901 CACTATTACA CATTGGCAA GGCGATATC GCGCGAATA AACCGTTAC
 951 GCCTCAGACC CTGTCGAGC TGGGTTCTAT AAGTAAAACC TTCACCGGCG
 1001 TTTTAGGTGG GGATGCCATT GCTCGCGGTG AAATTCGCT GGACGATGCG
 1051 GTGACCAGAT ACTGGCCACA GCTGACGGGC AAGCAGTGGC AGGGTATTG
 1101 TATGCTGGAT CTCGCCACCT ACACCGCTGG CGGCCTGCCG CTACAGGTAC
 1151 CGGATGAGGT CACGGATAAC GCCTCCCTGC TGCGCTTTA TCAAAACTGG
 1201 CAGCCGCAGT GGAAGCCTGG CACAACCGT CTTTACGCCA ACGCCAGCAT
 1251 CGGTCTTTT GGTGCGCTGG CGGTCAAACC TTCTGGCATG CCCTATGAGC
 1301 AGGCCATGAC GACGCCGGTC CTTAAGCCGC TCAAGCTGGA CCATACCTGG
 1351 ATTAACGTGC CGAAAGCGGA AGAGGCGCAT TACGCCCTGG GCTATCGTGA
 1401 CGGTAAAGCG GTGCGCGTT CGCCGGGTAT GCTGGATGCA CAAGCCTATG
 1451 GCGTAAAAC CAACGTGCAG GATATGGCGA ACTGGGTCAT GGCAAACATG
 1501 GCGCCGGAGA ACGTTGCTGA TGCCTCACTT AAGCAGGGCA TCGCGCTGGC
 1551 GCAGTCGCGC TACTGGCGTA TCGGGTCAAT GTATCAGGGT CTGGGCTGGG
 1601 AGATGCTCAA CTGGCCCGTG GAGGCCAACA CGGTGGTCGA GACGAGTTT
 1651 GGTAATGTAG CACTGGCGCC GTGCCCCGTG GCAGAAGTGA ATCCACCGGC
 1701 TCCCCCGGTC AAAGCGTCCT GGGTCCATAA AACGGGCTCT ACTGGCGGGT
 1751 TTGGCGCGTA CGTGGCCTTT ATTCTGAAA AGCAGATCGG TATTGTGATG
 1801 CTCGCGAATA CAAGCTATCC GAACCCGGCA CGCGTTGAGG CGGCATACCA
 1851 TATCCTCGAG GCGCTACAG (SEQ ID NO:10)

FIG.-4D

1 AGGAATTATC ATATGAAATA CCTGCTGCCG ACCGCTGCTG CTGGTCTGCT
 51 GCTCCTCGCT GCCCAGCCGG CCATGGCCGA CATCGTCCTG ACCCAGAGCC
 101 CGGCAAGCCT GTCTGTTCC CTGGGCCAGC GTGCCACTAT GTCCCTGCAGA
 151 GCGGGTGAGT CTGTTGACAT TTTCGGTGTC GGTTTCTGC ACTGGTACCA
 201 ACAGAAACCG GGTCAGCCGC CAAAAGTGC GATCTATCGT GCTTCTAAC
 251 TGGAGTCCGG CATCCCAGTA CGTTTCTCCG GTACTGGCTC TGGTACTGAT
 301 TTTACCCCTGA TTATCGACCC GGTGGAAGCA GACGATGTTG CCACCTACTA
 351 TTGCCAGCAG ACCAACGAGG ATCCGTACAC CTTCGGTGGC GGTACTAAC
 401 TGGAGATCAA AGGCGGTGGT GGTTCTGGTG GTGGTGGTAG CGGTGGCGGT
 451 GGTAGCGGTG CGGGTGGCAG CGGTGGTGGT GGCTCTGGTG CGGGTGGCTC
 501 TGAAGTGCAG CTGCAGCAGT CCGGTGCGGA GCTCGTTGAA CGGGCGCTT
 551 CTGTGAAACT GTCTTGCACT GCATCTGGTT TCAACATTAA GGACACCTAC
 601 ATGCACTGGG TGAAACAAACG CCCGGAACAG GGTCTGGAGT GGATCGGTG
 651 CATCGATCCG GCTAACCGTA ACAGCAAATA CGTGCCAAA TTCCAGGGTA
 701 AAGCAACCAT CACTGCTGAT ACCTCCTCTA ACAGTGCCTA CCTGCAGCTG
 751 ACTCCCTGA CTAGCGAAGA CACCGCGGTT TATTACTGCG CTCCGTTCGG
 801 CTAATATGTC AGCGATTACG CAATGGCCTA CTGGGGTCAG GGCACCTCTG
 851 TTACCGTTTC TAGCACACCG GTGTAGAAA AACAGCTGGC GGAGGTGGTC
 901 GCGAATACGA TTACCCCGCT GATGGCGGCC CAGTCTGTT CAGGCATGGC
 951 GGTGGCCGTT ATTTATCAGG GAAAACCGCA CTATTACACA TTTGGCAAGG
 1001 CCGATATCGC GGCGAATAAA CCCGTTACGC CTCAGACCCCT GTTCGAGCTG
 1051 GGTTCTATAA GTAAAACCTT CACCGGGCGTT TAGGGTGGGG ATGCCATTGC
 1101 TCGCGGTGAA ATTCGCTGG ACGATGCGGT GACCAAGATAC TGGCCACAGC
 1151 TGACGGGCAA GCAGTGGCAG GGTATTGTA TGCTGGATCT CGCCACCTAC
 1201 ACCGCTGGCG GCCTGCCGCT ACAGGTACCG GATGAGGTCA CGGATAACGC
 1251 CTCCCTGCTG CGCTTTTATC AAAACTGGCA GCCGCGAGTGG AAGCCTGGCA
 1301 CAACCGTCT TTACGCCAAC GCCAGCATCG GTCTTTTGG TCGCCTGGCG
 1351 GTCAAACCTT CTGGCATGCC CTATGAGCAG GCCATGACGA CGCGGGTCCT
 1401 TAAGCCGCTC AAGCTGGACC ATACCTGGAT TAACTGCCG AAAGCGGAAG
 1451 AGGCGCATTA CGCCTGGGGC TATCGTGACG GTAAAGCGGT GCGCGTTTCG
 1501 CCGGGTATGC TGGATGCACA AGCCTATGGC GTGAAAACCA ACGTGCAGGA
 1551 TATGGCGAAC TGGGTATGG CAAACATGGC GCCGGAGAAC GTTGCTGATG
 1601 CCTCACTTAA GCAGGGCATC GCGCTGGCGC AGTCGCGCTA CTGGCGTATC
 1651 GGGTCAATGT ATCAGGGTCT GGGCTGGGAG ATGCTCAACT GGCCCGTGG
 1701 GGCCAACACG GTGGTCGAGA CGAGTTTGG TAATGTAGCA CTGGCGCCGT
 1751 TGCCCGTGGC AGAAGTGAAT CCACCGGCTC CCCCAGTCAA AGCGTCCTGG
 1801 GTCCATAAAA CGGGCTCTAC TGGCGGGTTT GGCGCGTACG TGGCCTTTAT
 1851 TCCTGAAAAG CAGATCGGT A TTGTGATGCT CGCGAATACA AGCTATCCGA
 1901 ACCCGGCACG CGTTGAGGGCG GCATACCATA TCCTCGAGGC GCTACAGTAG
 1951 GAATTGAGC TCCGTCGACA AGCTTGCGGC CGCACTCGAG ATCAAACGGG
 2001 CTAGCCAGCC AGAACTCGCC CCGGAAGACC CCGAGGATGT CGAGCACAC
 2051 CACCACCACC ACTGAGATCC GGCTGCTAAC AAAGCCCGAA AGGAAGCTGA
 2101 GTTGGCTGCT GCCACCGCTG AGCAATAACT AGCATAACCC CTTGGGGCCT
 2151 CTAAACGGGT CTTGAGGGGT TTTTGCTGA AAGGAGGAAC TATATCCGG
 2201 TTGGCGAATG GGACGCGCCC TGTAGCGGC CATTAAGCGC GGCGGGTGTG
 2251 GTGGTTACGC GCAGCGTGCAC CGCTACACTT GCCAGCGCCC TAGCGCCCC
 2301 TCCTTCGCT TTCTTCCCTT CCTTTCTCGC CACGTTCGCC GGCTTCCCC

FIG._4E-1

2351 GTCAAGCTCT AAATCGGGGG CTCCCTTAG GGTTCCGATT TAGTGCTTTA
 2401 CGGCACCTCG ACCCCAAAAA ACTTGATTAG GGTGATGGTT CACGTAGTGG
 2451 GCCATCGCCC TGATAGACGG TTTTCGCCC TTTGACGTTG GAGTC CACGT
 2501 TCTTTAATAG TGGACTCTTG TTCCAAACTG GAACAAACACT CAACC CTATC
 2551 TCGGTCTATT CTTTGATTT ATAAGGGATT TTGCCGATT CGGCC TATTG
 2601 GTTAAAAAAT GAGCTGATT AACAAAAATT TAACCGAAT TTTAACAAAA
 2651 TATTAACGCT TACAATTTC TGATGCGGT A TTTCTCCTT ACGCATCTGT
 2701 GCGGTATTTC ACACCGCATA TGGTGCACTC TCAGTACAAT CTGCTCTGAT
 2751 GCCGCATAGT TAAGCCAGCC CCGACACCCG CCAACACCCG CTGAC GCGCC
 2801 CTGACGGGCT TGTCTGCTCC CGGCATCCGC TTACAGACAA GCTGTGACCG
 2851 TCTCCGGGAG CTGCATGTGT CAGAGGTTT CACCGTCATC ACCGA AACGC
 2901 GCGAGACGAA AGGGCCTCGT GATACGCCTA TTTTATAGG TTAATGTCAT
 2951 GATAATAATG GTTCTTAGA CGTCAGGTGG CACTTTCGG GGAAATGTGC
 3001 GCGGAACCCC TATTGT'TTA TTTTCTAAA TACATTCAAA TATGTATCCG
 3051 CTCATGAGAC AATAACCCCTG TGGCAGCATC ACCCGACGCA CTTTGCGCCG
 3101 AATAAAATACC TGTGACGGAA GATCACTTCG CAGAATAAAAT AAATCCTGGT
 3151 GTCCCTGTTG ATACCGGGAA GCCCTGGGCC AACTTTGGC GAAAATGAGA
 3201 CGTTGATCGG CACGTAAGAG GTTCCAACCTT TCACCATAAT GAAATAAGAT
 3251 CACTACCGGG CGTATTTTT GAGTTATCGA GATTTCAGG AGCTAAGGAA
 3301 GCTAAAATGG AGAAAAAAAT CACTGGATAT ACCACCGTTG ATATATCCCCA
 3351 ATGGCATCGT AAAGAACATT TTGAGGCATT TCAGTCAGTT GCTCAATGTA
 3401 CCTATAACCA GACC GTT CAG CTGGATATTA CGGCCTTTT AAAGAACCGTA
 3451 AAGAAAAATA AGCACAAGTT TTATCCGGCC TTTATTCA A TTCTTGCCCG
 3501 CCTGATGAAT GCTCATCCGG AATTCCGTAT GGCAATGAAA GACGGTGAGC
 3551 TGGTGATATG GGATAGTGTT CACCCTGTT ACACCGTTT CCATGAGCAA
 3601 ACTGAAACGT TTTCATCGCT CTGGAGTGAA TACCACGACG ATTTCCGGCA
 3651 GTTCTACAC ATATATTTCGC AAGATGTGGC GTGTTACGGT GAAAACCTGG
 3701 CCTATTCCC TAAAGGGTTT ATTGAGAATA TGTTTTCGT CTCAGCCAAT
 3751 CCCTGGGTGA GTTCAACCAG TTTGATTAA AACGTGGCCA ATATGGACAA
 3801 CTTCTTCGCC CCCGTTTCA CGATGGGCAA ATATTATACG CAAGGGCGACA
 3851 AGGTGCTGAT GCCGCTGGCG ATTCAAGGTT ATTCAATGCCGT CTGTGATGGC
 3901 TTCCATGTCG GCAGAATGCT TAATGAATT CAACAGTACT GCGATGAGTG
 3951 GCAGGGCGGG GCGTAAAGAC AGATCGCTGA GATAGGTGCC TCACGTGATTA
 4001 AGCATTGGTA ACTGTCAGAC CAAGTTACT CATATATACT TTAGATTGAT
 4051 TTAAAACCTTC ATT TTAAATT TAAAAGGATC TAGGTGAAGA TCCTTTTG
 4101 TAATCTCATG ACCAAAATCC CTTAACGTGA GTTTCGTTT CACTGAGCGT
 4151 CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC TTTTTTCTG
 4201 CGCGTAATCT GCTGCTTGCA AACAAAAAAA CCACCGCTAC CAGCGGTGGT
 4251 TTGTTGCCG GATCAAGAGC TACCAACTCT TTTCCGAAG GTAACTGGCT
 4301 TCAGCAGAGC GCAGATACCA AATACTGTT TTCTAGTGTAA GCCGTAGTTA
 4351 GGCCACCACT TCAAGAACTC TGTAGCACC CGTACATACC TCGCTCTGCT
 4401 AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACCG
 4451 GGTTGGACTC AAGACGATAG TTACCGGATA AGGCGCAGCG GTCGGGCTGA
 4501 ACGGGGGGTT CGTGACACACA GCCCAGCTTG GAGCGAACGA CCTACACCGA
 4551 ACTGAGATAC CTACAGCGTG AGCTATGAGA AAGCGCCACG CTTCCCGAAG
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 4651 CGCACGAGGG AGCTTCCAGG GGGAAACGCC TGGTATCTT ATAGTCCTGT

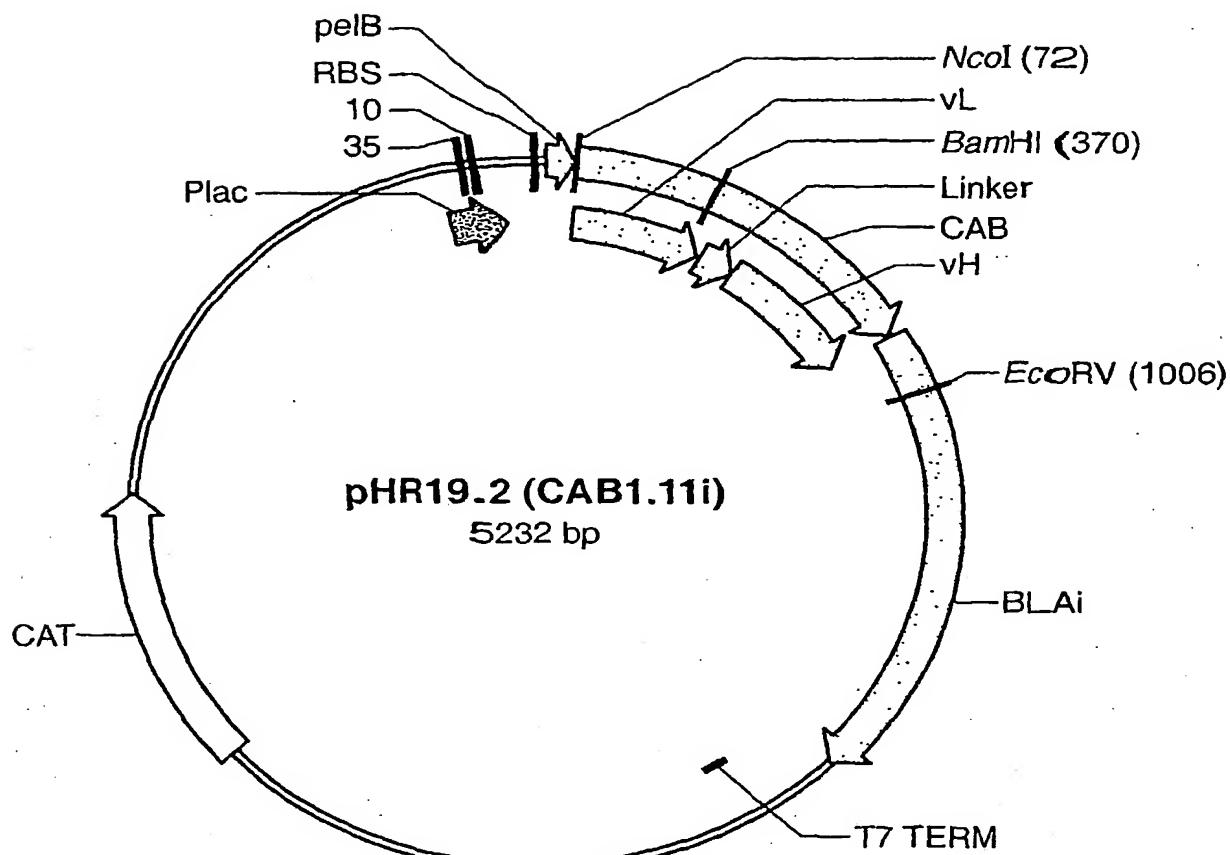
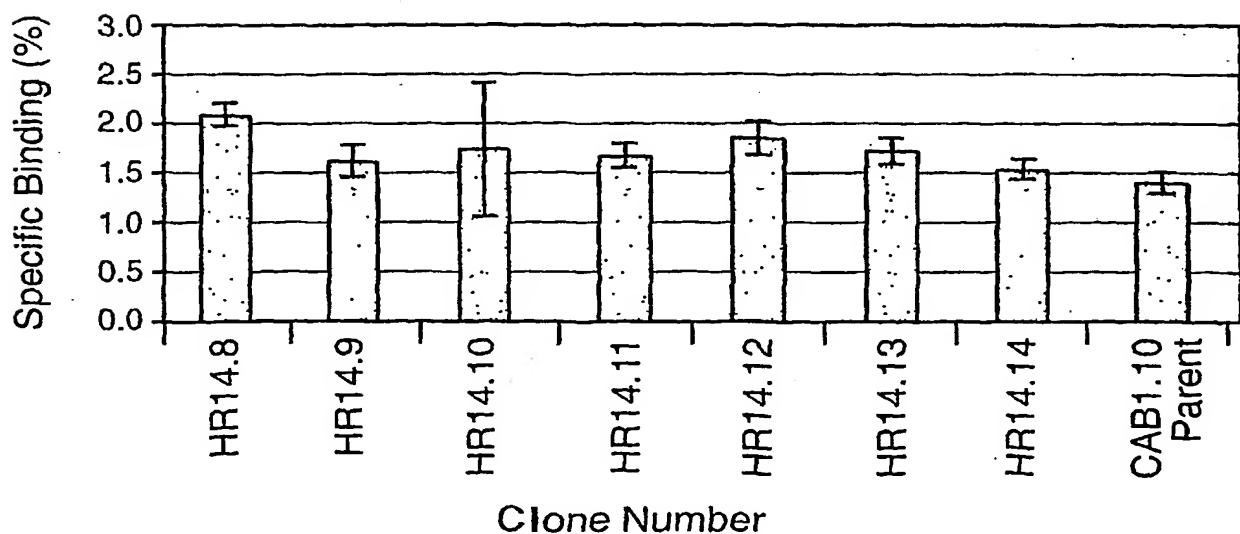
FIG._4E-2

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4701 CGGGTTTCGC CACCTCTGAC TTGAGCGTCG ATTTTTGTGA TGCTCGTCAG
4751 GGGGGCGGAG CCTATGGAAA AACGCCAGCA ACGCGGCCTT TTTACGGTC
4801 CTGGCCTTT GCTGGCCTT TGCTCACATG TTCTTCCTG CGTTATCCCC
4851 TGATTCTGTG GATAACCGTA TTACCGCCTT TGAGTGAGCT GATACCGCTC
4901 GCCGCAGCCG AACGACCGAG CGCAGCGAGT CAGTGAGCGA GGAAGCGGAA
4951 GAGCGCCCAA TACGCCAAACC GCCTCTCCCC GCGCGTTGGC CGATTCA
5001 ATGCAGCTGG CACGACAGGT TTCCCGACTG GAAAGCGGGC AGTGAGCGC
5051 ACGCAATTAA TGTGAGTTAG CTCACTCATT AGGCACCCCCA GGCTTTACAC
5101 TTTATGCTTC CGGCTCGTAT GTTGTGTGGA ATTGTGAGCG GATAACAATT
5151 TCACACAGGA AACAGCTATG ACCATGATTA CGCCAAGCTA TTTAGGTGAC
5201 ACTATAGAAT ACTCAAGCTT TCTAGATTAA GG

FIG._4E-3

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**FIG._5****FIG._6**

ADEPT 14L; EB101.1/pHR19.2, CAB1.11i

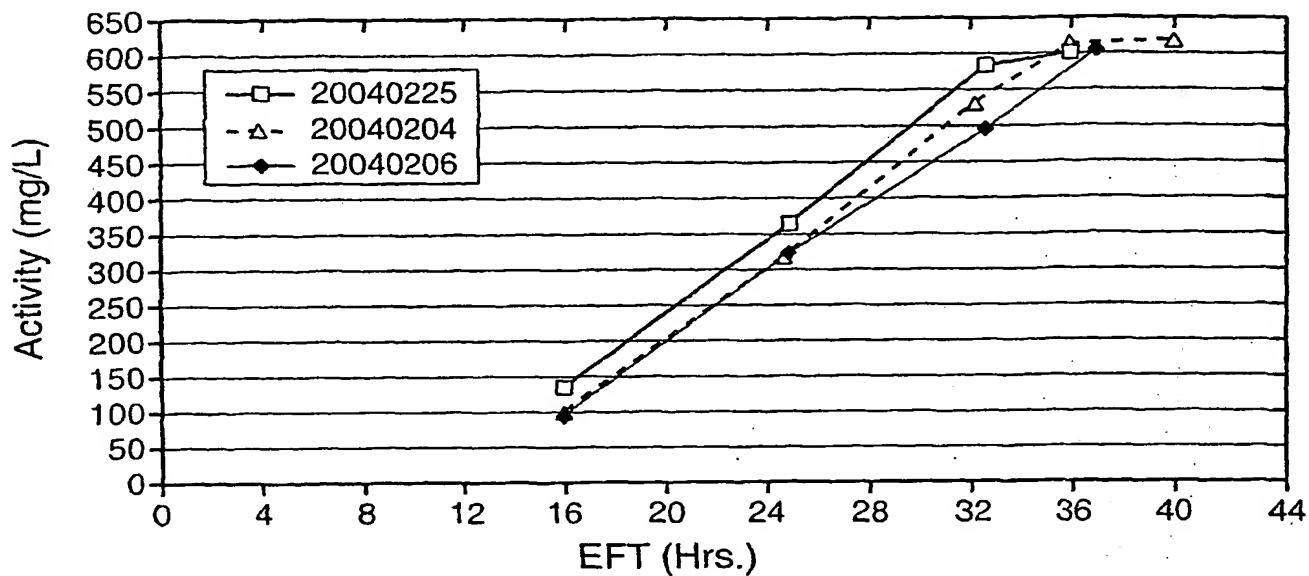


FIG.-7

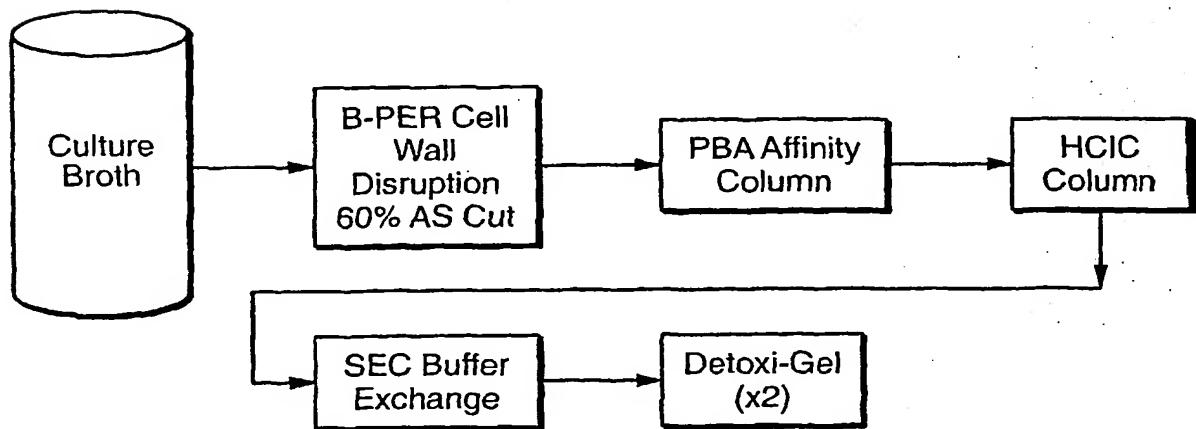


FIG.-8

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Lane 1: Molecular Weight Standard; Lanes 3-5: Unrelated Proteins; Lane 6: CAB1.11i.

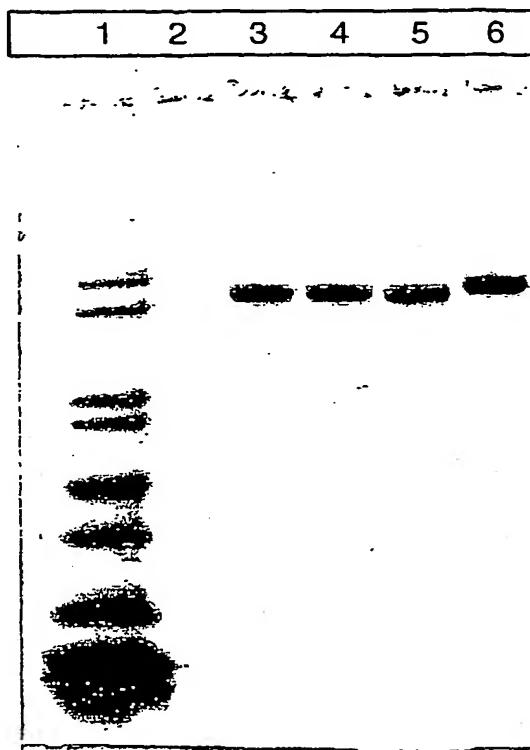
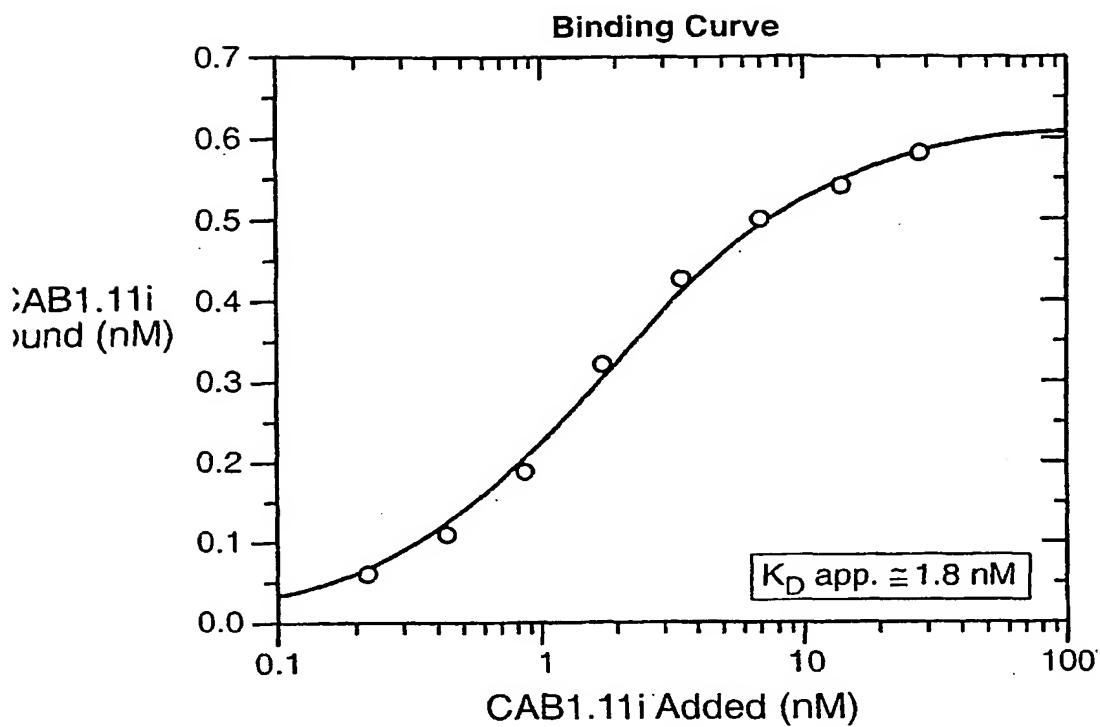
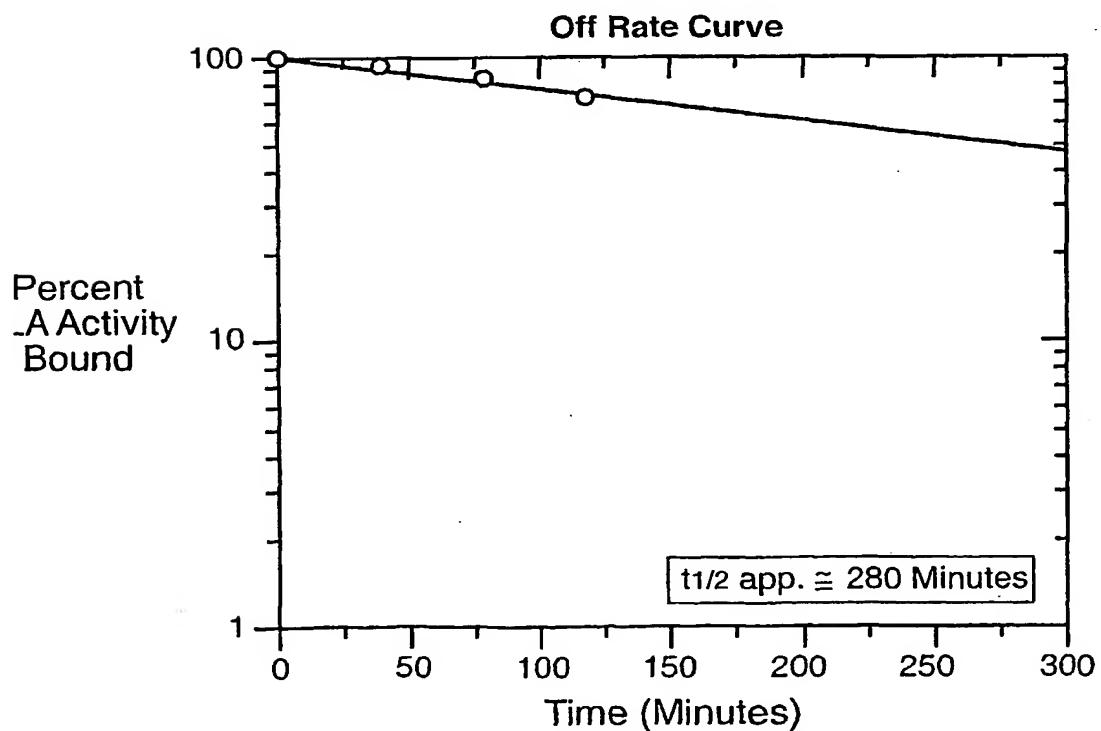
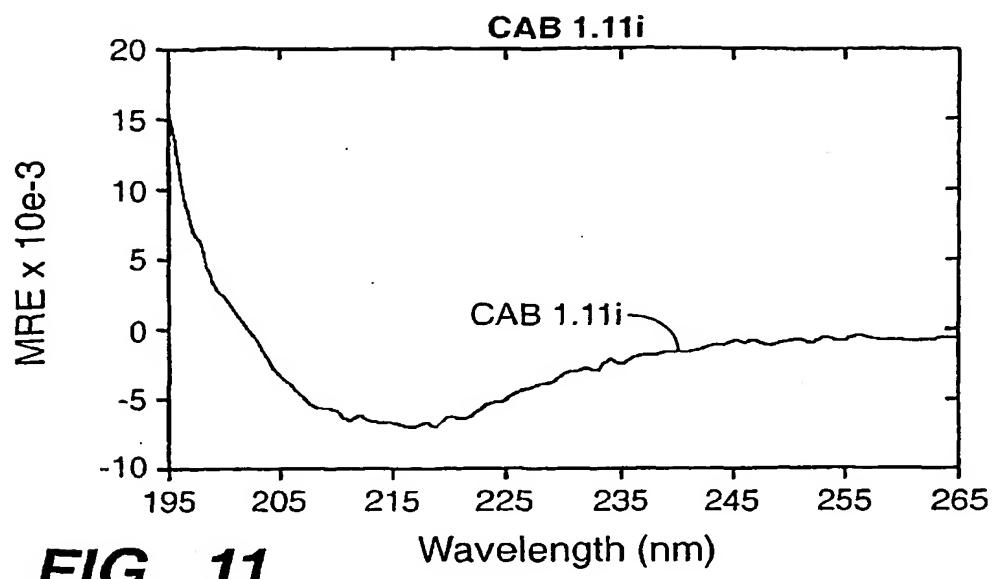
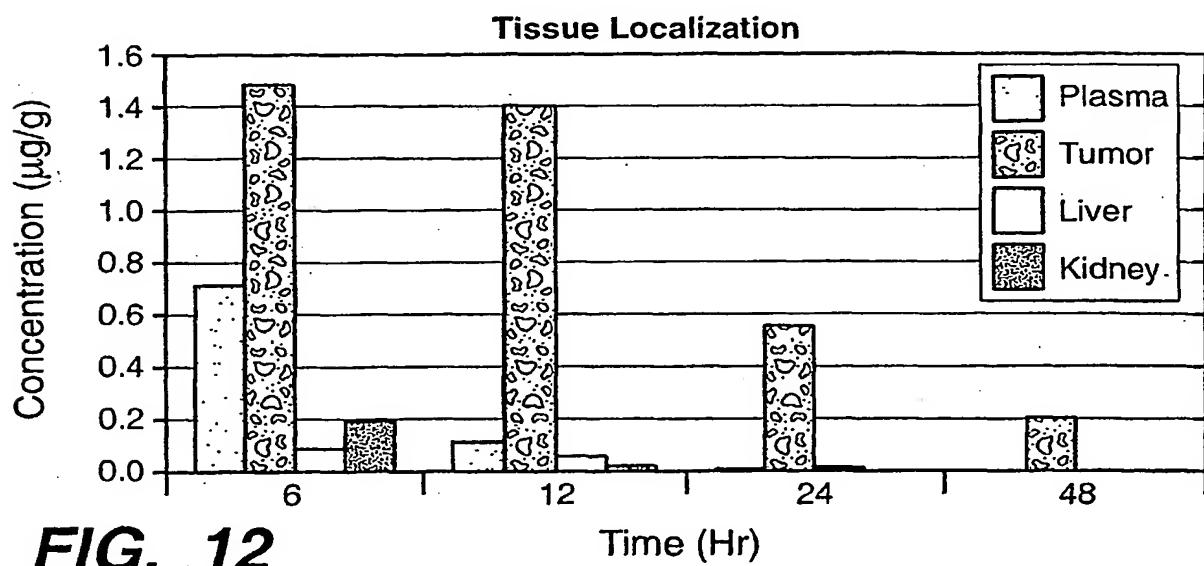


FIG._9

**FIG._ 10A****FIG._ 10B**

**FIG._ 11****FIG._ 12**

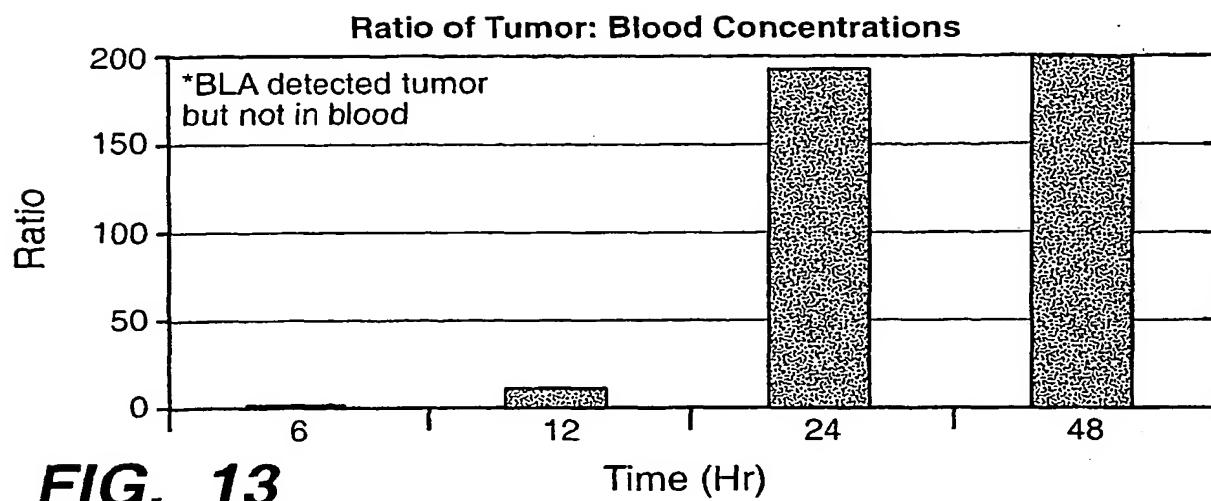
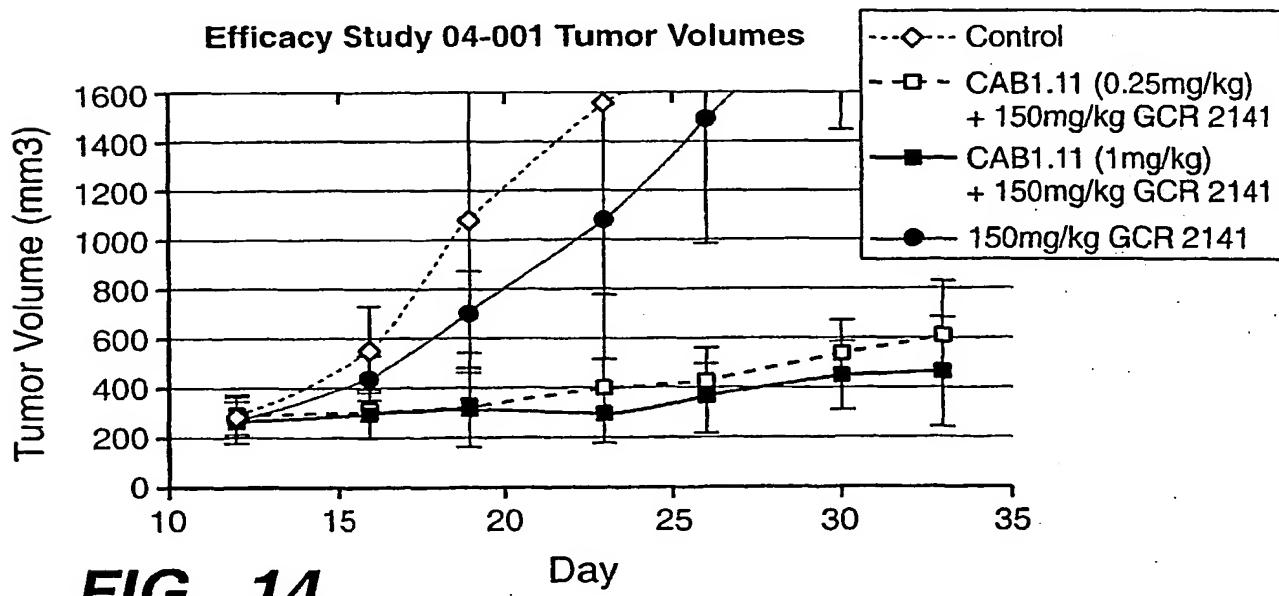
**FIG._ 13****FIG._ 14**

FIG._ 15A

Case ID	ASM	Sample ID	Sample Pathology
<u>CI0000000255</u>	DF5	FR00005C7B	Adenocarcinoma of lung
<u>CI0000005496</u>	FF5	FR5B337147	Adenocarcinoma of lung
<u>CI0000011577</u>	FF1	FR5B34059F	Adenocarcinoma of lung
<u>CI7000000241</u>	AF4	FR00033A78	Adenocarcinoma of lung
<u>CI0000007518</u>	AF5	FR0001FD15	Carcinoma of lung, squamous cell
<u>CI0000008475</u>	HF4	FR65EE0784	Adenocarcinoma of colon, metastatic
<u>CI0000015252</u>	FF2	FR5B342166	Adenocarcinoma of colon

Case Diagnosis	Tissue of Origin/Site of Finding	H/E
Adenocarcinoma of lung Grade: AJCC G3: Poorly differentiated Stage: IIIA	Lung/Lung	<u>4X</u> <u>20X</u>
Adenocarcinoma of lung Grade: AJCC G3: Poorly differentiated Stage: IIIB	Lung/Lung	<u>4X</u> <u>20X</u>
Adenocarcinoma of lung Grade: AJCC G2: Moderately differentiated Stage: IIIA	Lung/Lung	<u>4X</u> <u>20X</u>
Adenocarcinoma of lung Grade: AJCC G2: Moderately differentiated Stage: IIIA	Lung/Lung	<u>4X</u> <u>20X</u>
Carcinoma of lung, squamous cell Grade: AJCC G3: Poorly differentiated Stage: IIIA	Lung/Lung	<u>4X</u> <u>20X</u>
Adenocarcinoma of colon, metastatic Grade: Not Reported Stage: IV	Colon/Liver	<u>4X</u> <u>20X</u>
Adenocarcinoma of colon Grade: AJCC G3: Poorly differentiated Stage: IIIB	Cecum/Cecum	<u>4X</u> <u>20X</u>

FIG._ 15C

Anti-Human Cytokeratin AE1/AE3	CAB/GCR3708 (0.2ug/ml)
Immunogenicity: Tumor (100%, Variable to 3+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029758</u>	Immunogenicity: Tumor (100%, Variable to 3+ Cyto) Mixed inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029756</u>
	Immunogenicity: Tumor (15%, Variable to 3+ Cyto) Intra-alveolar macrophages (Variable to 2+ Cyto) Mixed inflammatory cells (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002975B</u>
	Immunogenicity: Tumor (100%, 2+ Cyto) Cellular stroma (1+ Cyto) Chronic inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002977F</u>
	Immunogenicity: Tumor (75%, Variable to 3+ Cyto) Cellular stroma (Variable to 2+ Cyto) Necrosis (Variable to 2+ EC) Intra-alveolar macrophages (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002978B</u>
	Immunogenicity: Tumor (100%, 3+ Cyto) Fibrotic stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002975F</u>
Immunogenicity: Tumor (98%, Variable to 3+ Mem, Variable to 3+ Cyto) Fibrotic stroma (Variable to 1+ Cyto) Normal liver parenchyma (2+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976A</u>	Immunogenicity: Tumor (95%, Variable to 3+ Mem, Variable to 3+ Cyto) Fibrotic stroma (Variable to 1+ Cyto) Normal liver parenchyma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976B</u> Normal liver parenchyma shows positive staining (1+)
	Immunogenicity: Tumor (85%, Variable to 3+ Mem, Variable to 3+ Cyto) Cellular stroma (1+ Cyto) Normal muscle (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029783</u>

FIG._ 15D

CAB/GCR5517 (0.2ug/ml)	CAB/GCR6798 (0.2ug/ml)
Immunogenicity: Tumor (100%, Variable to 3+ Cyto) Mixed inflammatory cells (Variable to 3+ Cyto) Necrosis (Variable to 2+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029757</u>	Immunogenicity: Tumor (100%, Variable to 3+ Cyto) Mixed inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029753</u>
Immunogenicity: Tumor (40%, Variable to 3+ Cyto) Intra-alveolar macrophages (Variable to 2+ Cyto) Mixed inflammatory cells (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002975C</u>	Immunogenicity: Tumor (10%, Variable to 2+ Cyto) Intra-alveolar macrophages (Variable to 2+ Cyto) Mixed inflammatory cells (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029759</u>
Immunogenicity: Tumor (100%, 2+ Cyto) Cellular stroma (1+ Cyto) Chronic inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029780</u>	Immunogenicity: Tumor (100%, 2+ Cyto) Cellular stroma (1+ Cyto) Chronic inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002977D</u>
Immunogenicity: Tumor (85%, Variable to 3+ Cyto) Cellular stroma (Variable to 2+ Cyto) Necrosis (Variable to 2+ EC) Intra-alveolar macrophages (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002978C</u>	Immunogenicity: Tumor (75%, Variable to 3+ Cyto) Cellular stroma (Variable to 2+ Cyto) Necrosis (Variable to 2+ EC) Intra-alveolar macrophages (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029789</u>
Immunogenicity: Tumor (100%, 3+ Cyto) Fibrotic stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029760</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Fibrotic stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002975D</u>
Immunogenicity: Tumor (98%, Variable to 3+ Mem, Variable to 3+ Cyto) Fibrotic stroma (Variable to 1+ Cyto) Normal liver parenchyma (2+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029769</u>	Immunogenicity: Tumor (95%, Variable to 3+ Mem, Variable to 3+ Cyto) Fibrotic stroma (Variable to 1+ Cyto) Normal liver parenchyma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029765</u> Normal liver parenchyma shows positive staining (1+)
Immunogenicity: Tumor (85%, Variable to 3+ Mem, Variable to 3+ Cyto) Cellular stroma (1+ Cyto) Normal muscle (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029784</u>	Immunogenicity: Tumor (95%, Variable to 3+ Mem, Variable to 3+ Cyto) Cellular stroma (1+ Cyto) Normal muscle (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029781</u>

FIG._ 15E

CAB/GCR8886 (0.196ug/ml)	No Antibody Control (Prediluted)
Immunogenicity: Tumor (100%, Variable to 3+ Cyto) Mixed inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029754</u>	Immunogenicity: N/A Specificity: Unknown <u>SF00029755</u>
Immunogenicity: Tumor (10%, Variable to 2+ Cyto) Intra-alveolar macrophages (Variable to 2+ Cyto) Mixed inflammatory cells (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002975A</u>	
Immunogenicity: Tumor (100%, 2+ Cyto) Cellular stroma (1+ Cyto) Chronic inflammatory cells (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002977E</u>	
Immunogenicity: Tumor (75%, Variable to 3+ Cyto) Cellular stroma (Variable to 2+ Cyto) Necrosis (Variable to 2+ EC) Intra-alveolar macrophages (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002978A</u>	
Immunogenicity: Tumor (100%, 3+ Cyto) Fibrotic stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002975E</u>	
Immunogenicity: Tumor (95%, Variable to 3+ Mem, Variable to 3+ Cyto) Fibrotic stroma (Variable to 1+ Cyto) Normal liver parenchyma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029766</u> Normal liver parenchyma shows positive staining (1+)	Immunogenicity: N/A Specificity: Unknown <u>SF00029767</u>
Immunogenicity: Tumor (95%, Variable to 3+ Mem, Variable to 3+ Cyto) Cellular stroma (1+ Cyto) Normal muscle (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029782</u>	

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<u>CI0000017970</u>	HF1	FR65EE7B3D	Adenocarcinoma of colon
<u>CI0000010013</u>	AF2	FR00028F2E	Adenocarcinoma of pancreas, metastatic
<u>CI0000009651</u>	AF1	FR0002B111	Adenocarcinoma of pancreas, ductal
<u>CI0000008690</u>	CF4	FR00027B0E	Adenocarcinoma of pancreas, ductal
<u>CI0000007678</u>	AF3	FR0002575B	Adenocarcinoma of pancreas, ductal
<u>CI0000009736</u>	AF2	FR0002BAB4	Adenocarcinoma of pancreas, ductal

FIG._15F

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Adenocarcinoma of colon Grade: AJCC G3: Moderately differentiated Stage: IIIC	Colon/Colon	<u>4X</u> <u>20X</u>
Adenocarcinoma of pancreas, metastatic Grade: Not Reported Stage: IV	Pancreas/Omentum	<u>4X</u> <u>20X</u>
Adenocarcinoma of pancreas, ductal Grade: AJCC G2: Moderately differentiated Stage: IIB	Pancreas/Pancreas	<u>4X</u> <u>20X</u>
Adenocarcinoma of pancreas, ductal Grade: AJCC G1: Well differentiated Stage: IIA	Pancreas/Pancreas	<u>4X</u> <u>20X</u>
Adenocarcinoma of pancreas, ductal Grade: AJCC G2: Moderately differentiated Stage: III	Pancreas/Pancreas	<u>4X</u> <u>20X</u>
Adenocarcinoma of pancreas, ductal Grade: AJCC G2: Moderately differentiated Stage: IIB	Pancreas/Pancreas	<u>4X</u> <u>20X</u>

FIG._ 15G

	Immunogenicity: Tumor (100%, 3+ Cyto) Cellular stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029787</u>
Immunogenicity: Tumor (100%, 3+ Cyto) Fibroadipose tissue (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002977C</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Fibroadipose tissue (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002977A</u>
	Immunogenicity: Tumor (100%, 3+ Cyto) Desmoplastic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029771</u>
	Immunogenicity: Tumor (100%, 3+ Cyto) Myxoid stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976D</u>
	Immunogenicity: Tumor (85%, Variable to 3+ Cyto) Cellular stroma (Variable to 1+ Cyto) Chronic pancreatitis (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029763</u>
	Immunogenicity: Tumor (100%, 3+ Cyto) Chronic pancreatitis (Variable to 2+ Cyto) Fibrotic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029775</u>

FIG._15H

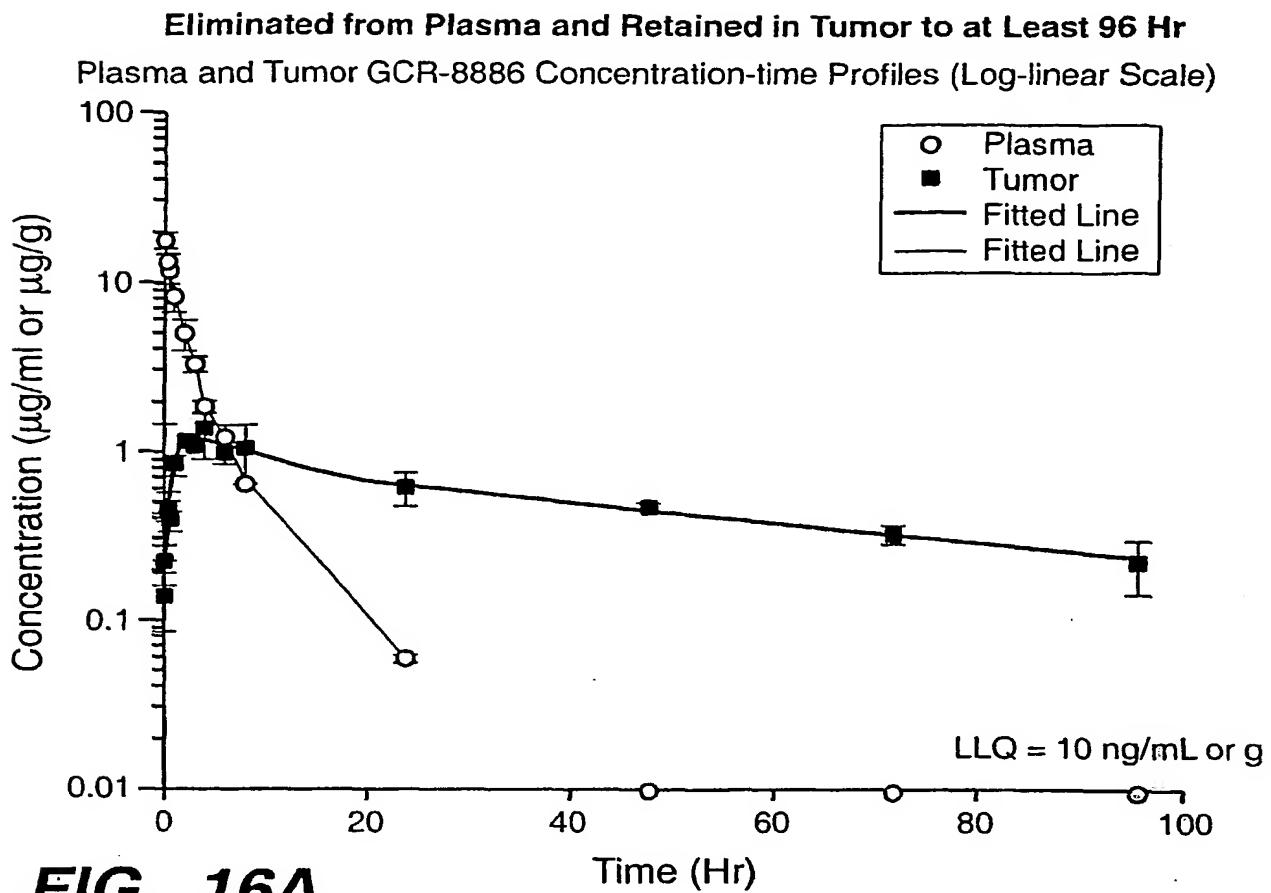
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Immunogenicity: Tumor (100%, 3+ Cyto) Cellular stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029788</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Cellular stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029785</u>
Immunogenicity: Tumor (100%, 3+ Cyto) Fibroadipose tissue (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002977B</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Fibroadipose tissue (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029777</u>
Immunogenicity: Tumor (100%, 3+ Cyto) Desmoplastic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029772</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Desmoplastic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029770</u>
Immunogenicity: Tumor (100%, 3+ Cyto) Myxoid stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976E</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Myxoid stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976B</u>
Immunogenicity: Tumor (85%, Variable to 3+ Cyto) Cellular stroma (Variable to 1+ Cyto) Chronic pancreatitis (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029764</u>	Immunogenicity: Tumor (85%, Variable to 3+ Cyto) Cellular stroma (Variable to 1+ Cyto) Chronic pancreatitis (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029761</u>
Immunogenicity: Tumor (100%, 3+ Cyto) Chronic pancreatitis (Variable to 2+ Cyto) Fibrotic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029776</u>	Immunogenicity: Tumor (100%, 3+ Cyto) Chronic pancreatitis (Variable to 1+ Cyto) Fibrotic stroma (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029773</u>

FIG._ 15I

<p>Immunogenicity: Tumor (100%, 3+ Cyto) Cellular stroma (1+ Cyto) Necrosis (Variable to 3+ EC) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029786</u> </p>	
<p>Immunogenicity: Tumor (100%, 3+ Cyto) Fibroadipose tissue (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029778</u> </p>	<p>Immunogenicity: N/A Specificity: N/A <u>SF00029779</u> </p>
<p>Immunogenicity: Tumor (100%, 3+ Cyto) Desmoplastic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976F</u> </p>	
<p>Immunogenicity: Tumor (100%, 3+ Cyto) Myxoid stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF0002976C</u> </p>	
<p>Immunogenicity: Tumor (85%, Variable to 3+ Cyto) Cellular stroma (Variable to 1+ Cyto) Chronic pancreatitis (Variable to 1+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029762</u> </p>	
<p>Immunogenicity: Tumor (100%, 3+ Cyto) Chronic pancreatitis (Variable to 2+ Cyto) Fibrotic stroma (Variable to 2+ Cyto) Specificity: High <u>4x</u> <u>20x</u> <u>SF00029774</u> </p>	

FIG_- 15J**FIG_- 15A FIG_- 15B FIG_- 15C FIG_- 15D FIG_- 15E****FIG_- 15F FIG_- 15G FIG_- 15H FIG_- 15I FIG_- 15J****FIG_- 15**

**FIG._ 16A**

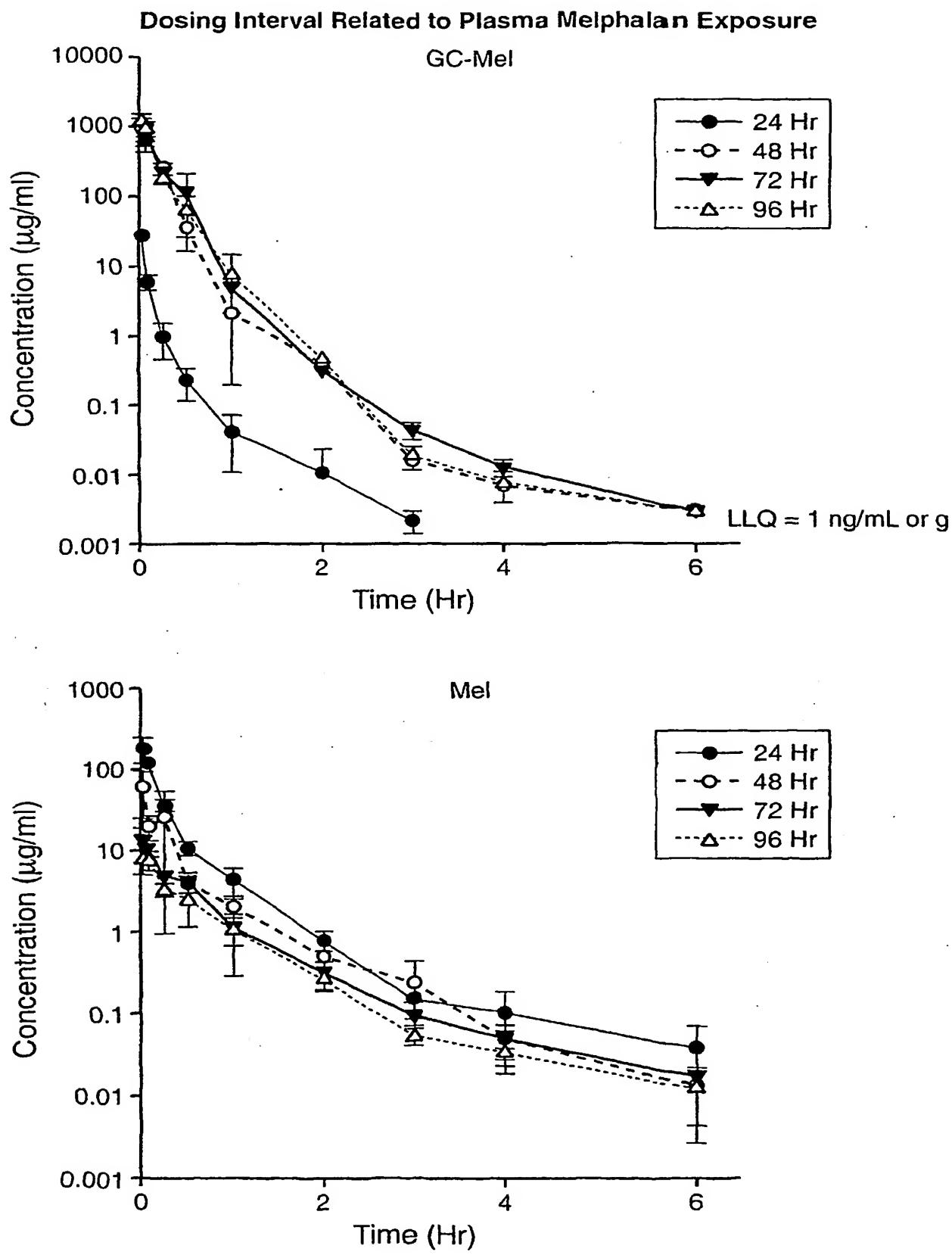
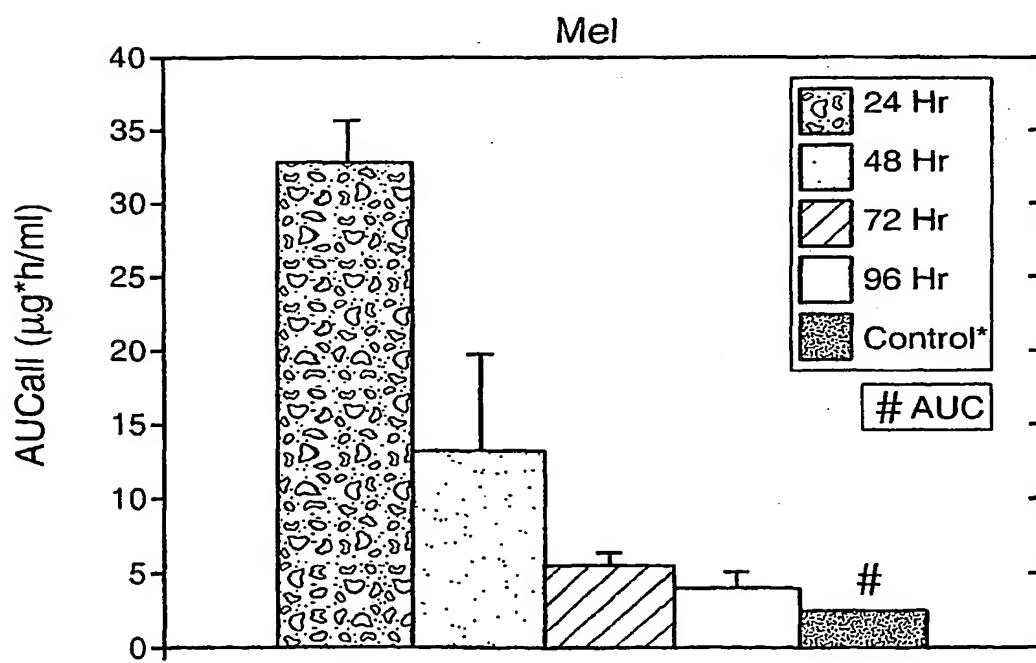
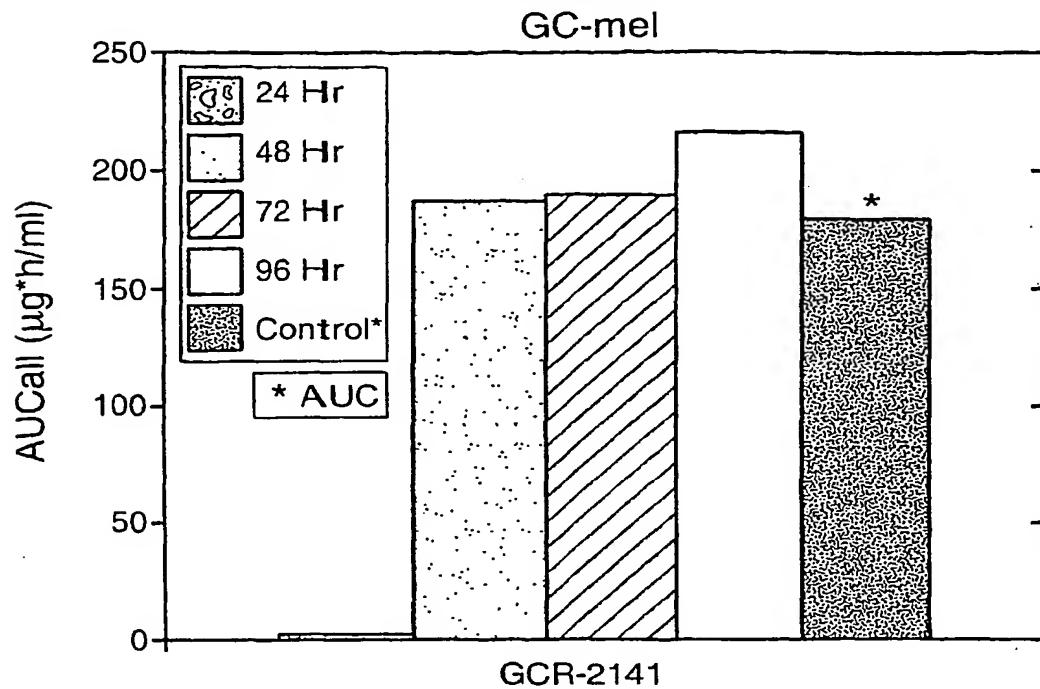


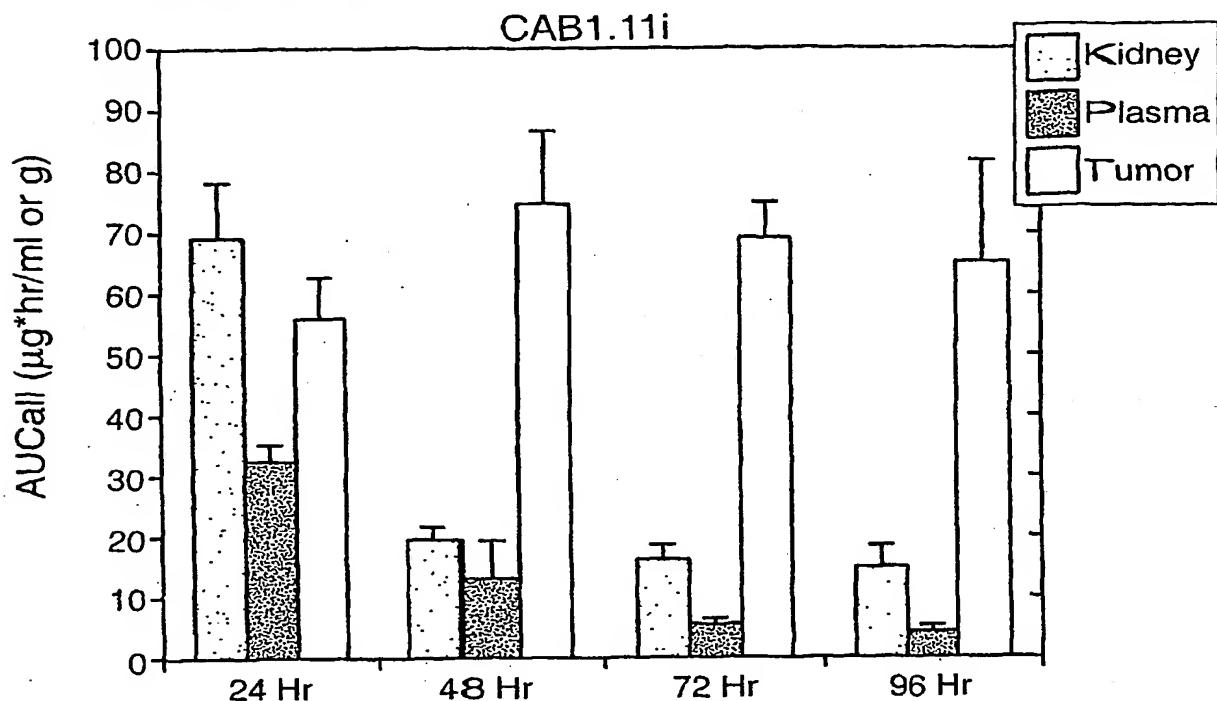
FIG._16B-1

Dosing Interval Related to Plasma Melphalan Exposure

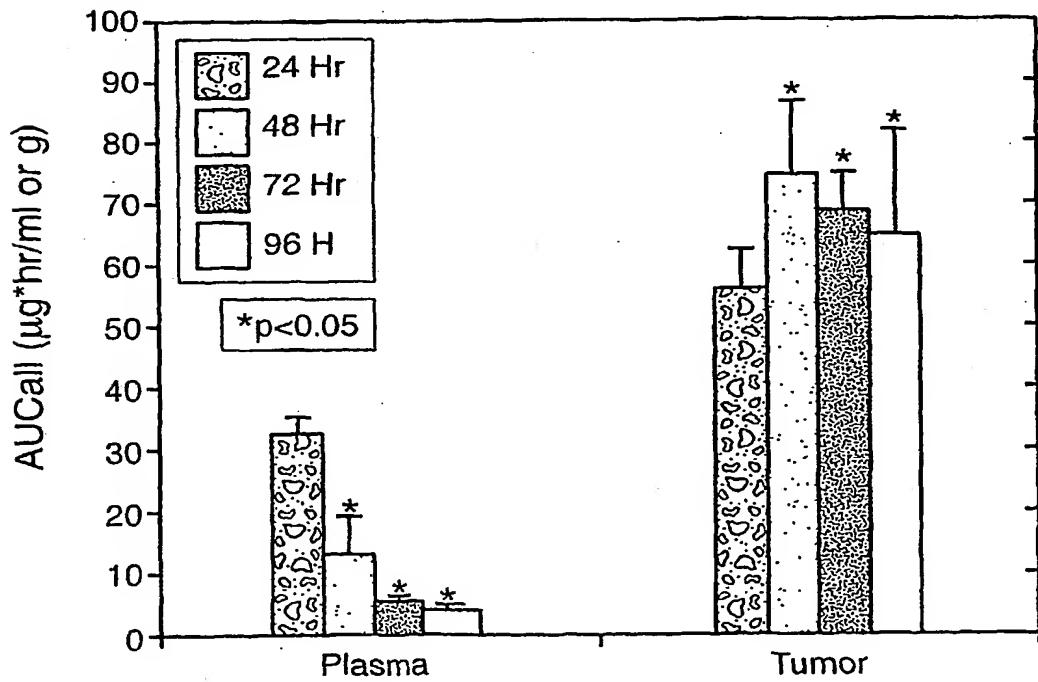
**FIG._ 16B-2**

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Plasma and Kidney Exposure to is Decreased with Increased Interval Between GCR CAB1.11i and GCR GC-mel Administration

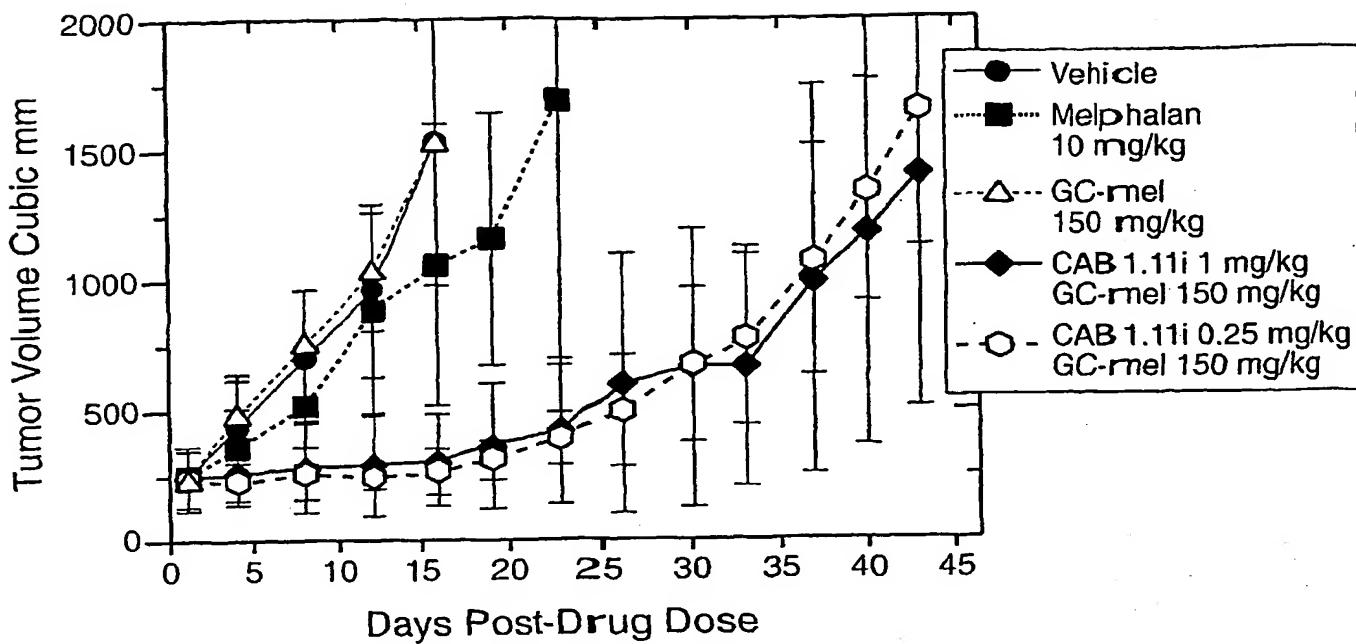
**FIG._17**

Efficacious Tumor Melphalan Exposures Achieved at Each Time Interval While Systemic Melphalan Exposure Decreased

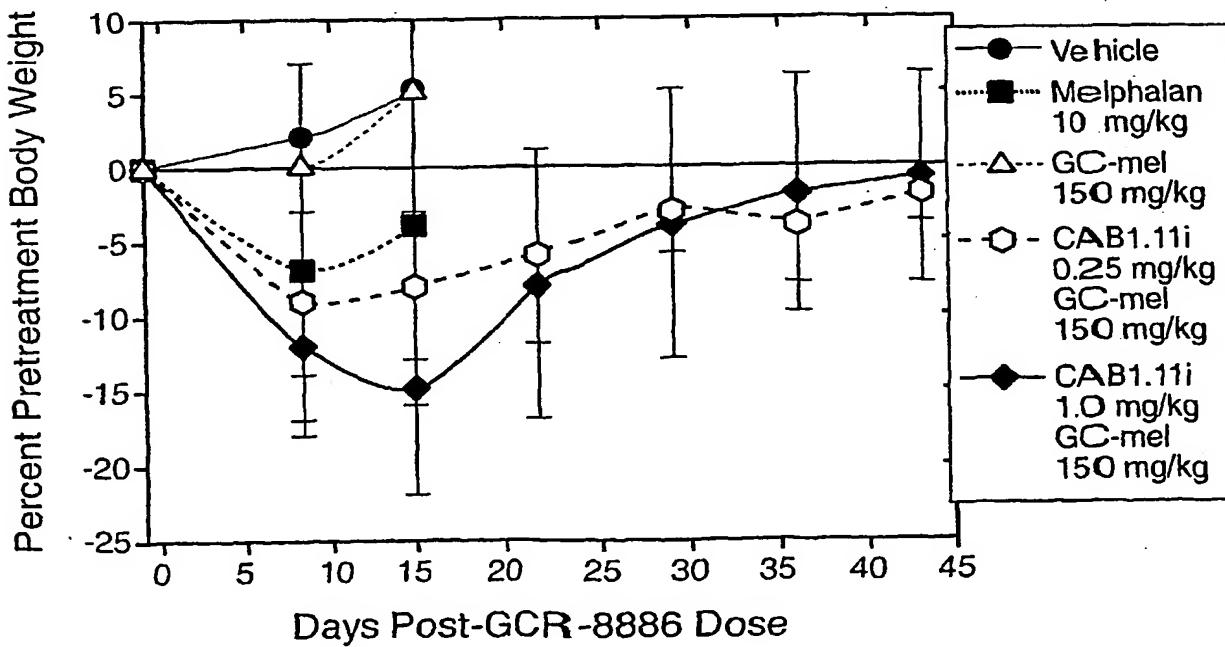


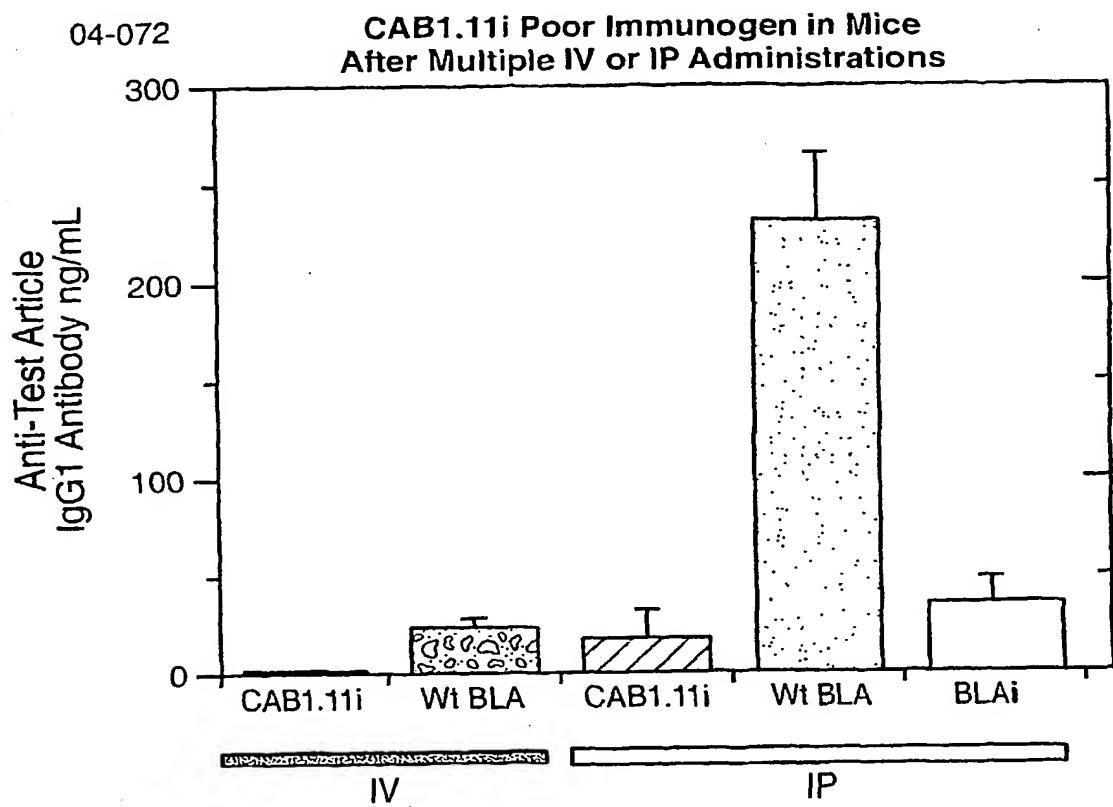
• Efficacy demonstrated at 24 hr interval in TLS174T xenograft mouse model

FIG._18

**FIG. 19A**

04-066 Completed

**FIG. 19B**



CAB1.11i weekly immunogenic after
multiple IP doses in alum-similar to BLAi

FIG._20

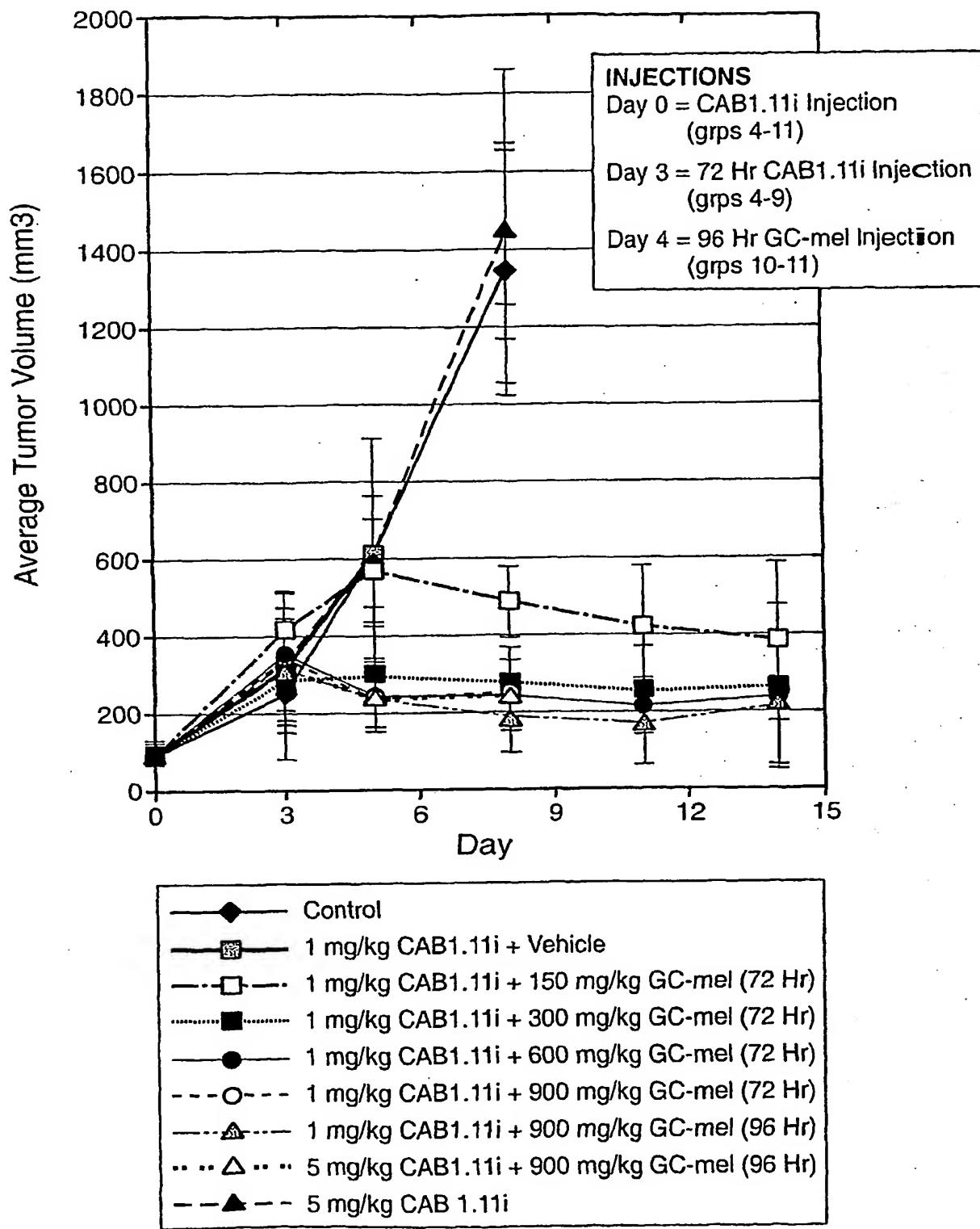
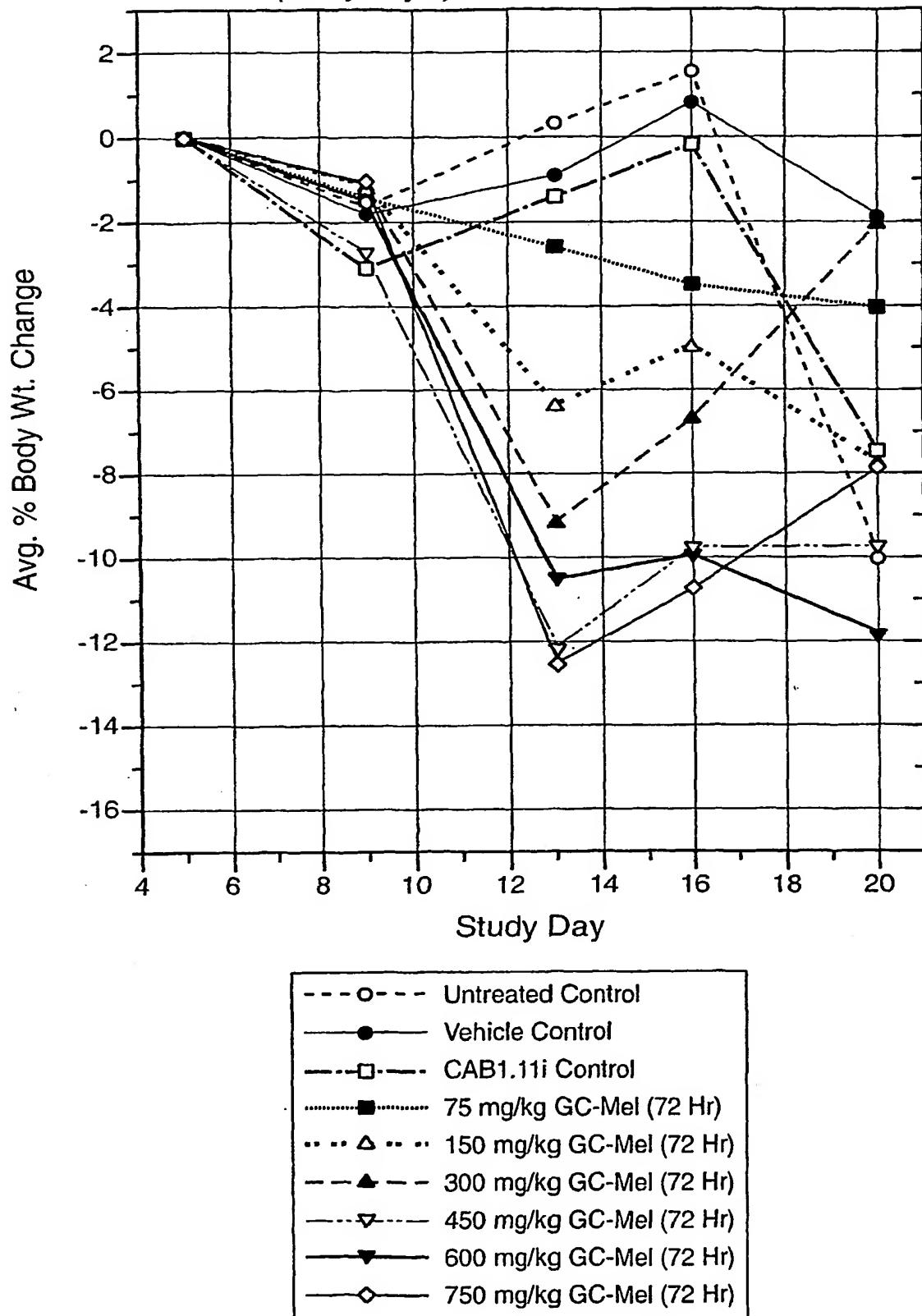


FIG. 21

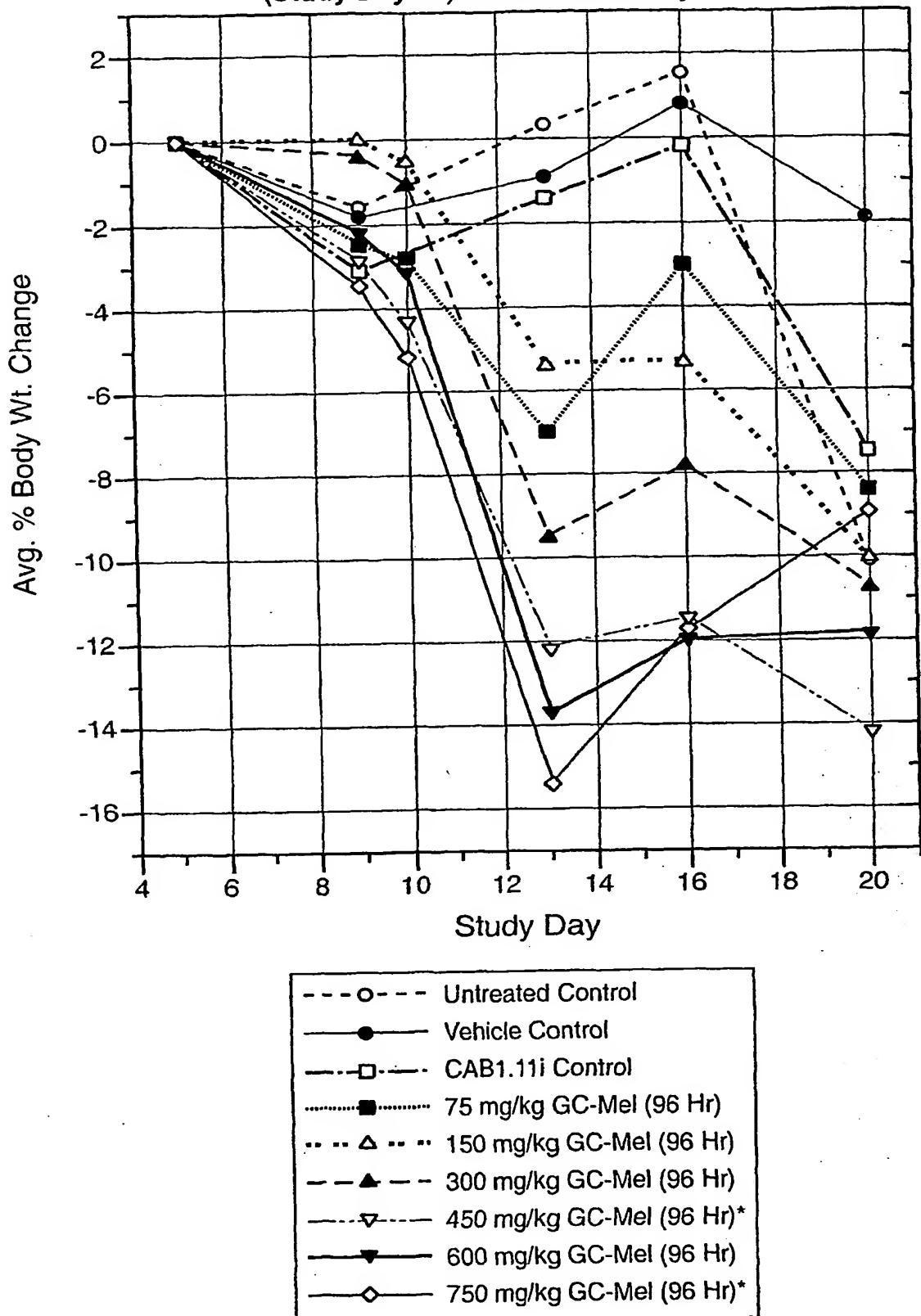
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**Avg. % Body Wt. Loss – GC-mel Injection 72 Hrs.
(Study Day 9) Post GCR-8886 Injection**

**FIG._22A**

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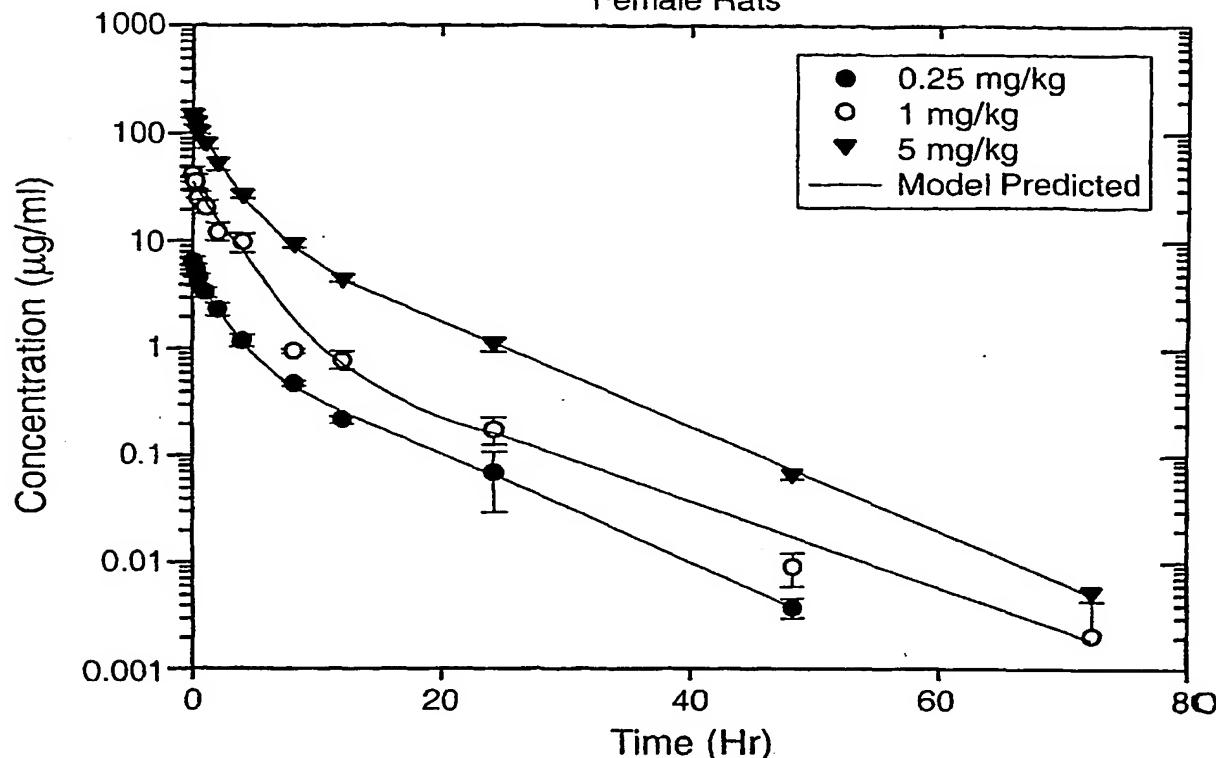
Avg. % Body Wt. Loss - GC-mel Injection 96 Hrs.
(Study Day 10) Post CAB1.11i Injection

**FIG.-22B**

Plasma CAB1.11i Concentration-time Profile in Rats

Results

Female Rats



Male Rats

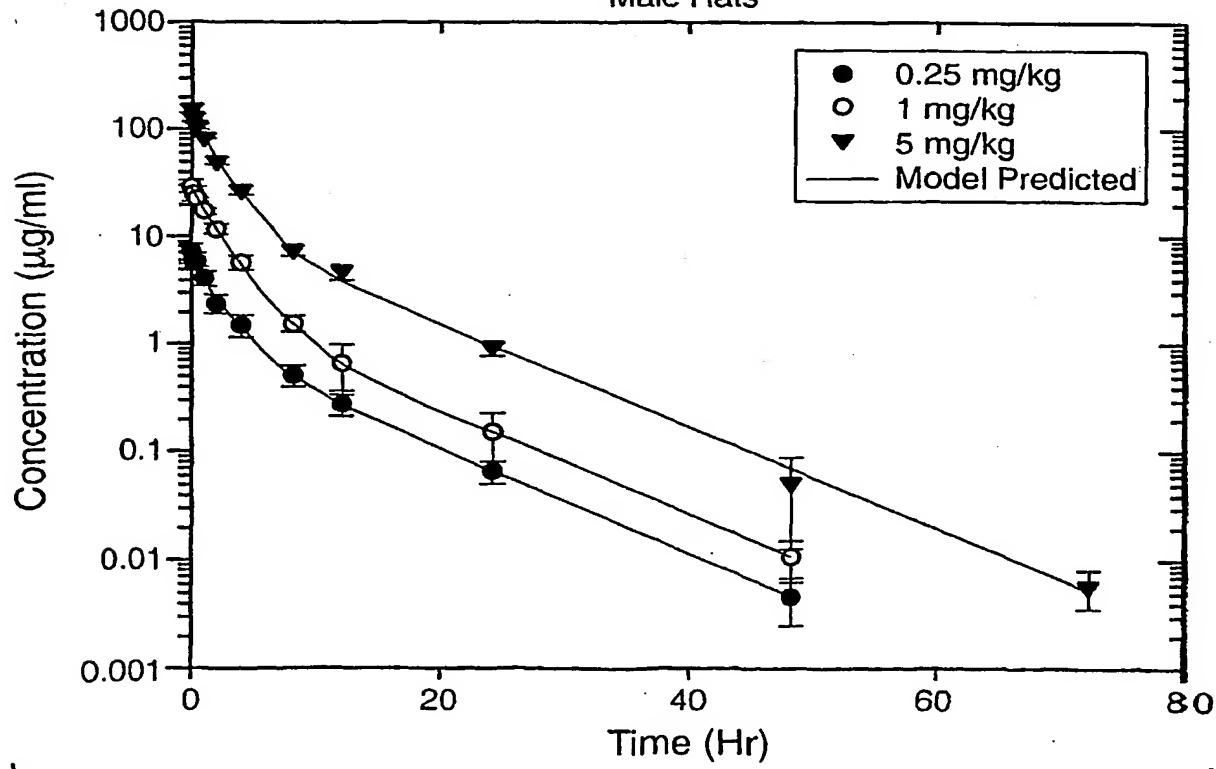
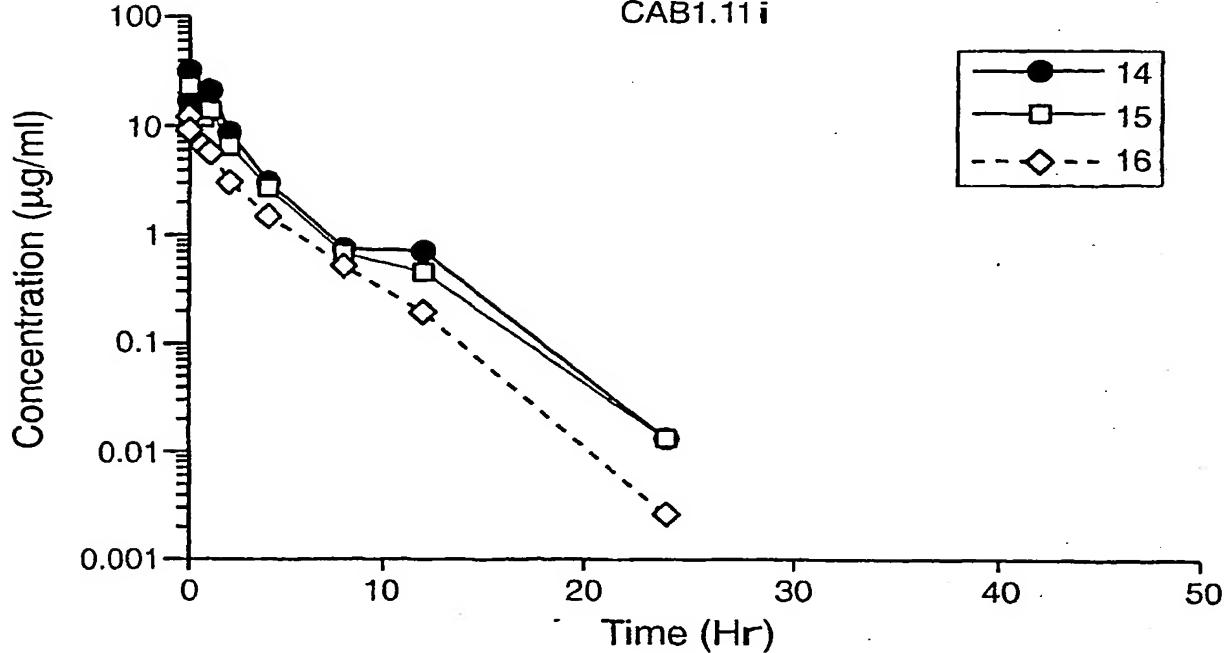


FIG.-23

**Plasma GCR-8886 Concentration-time Profiles in Rats
Results**

CAB1.11 i



CAB1.11 i

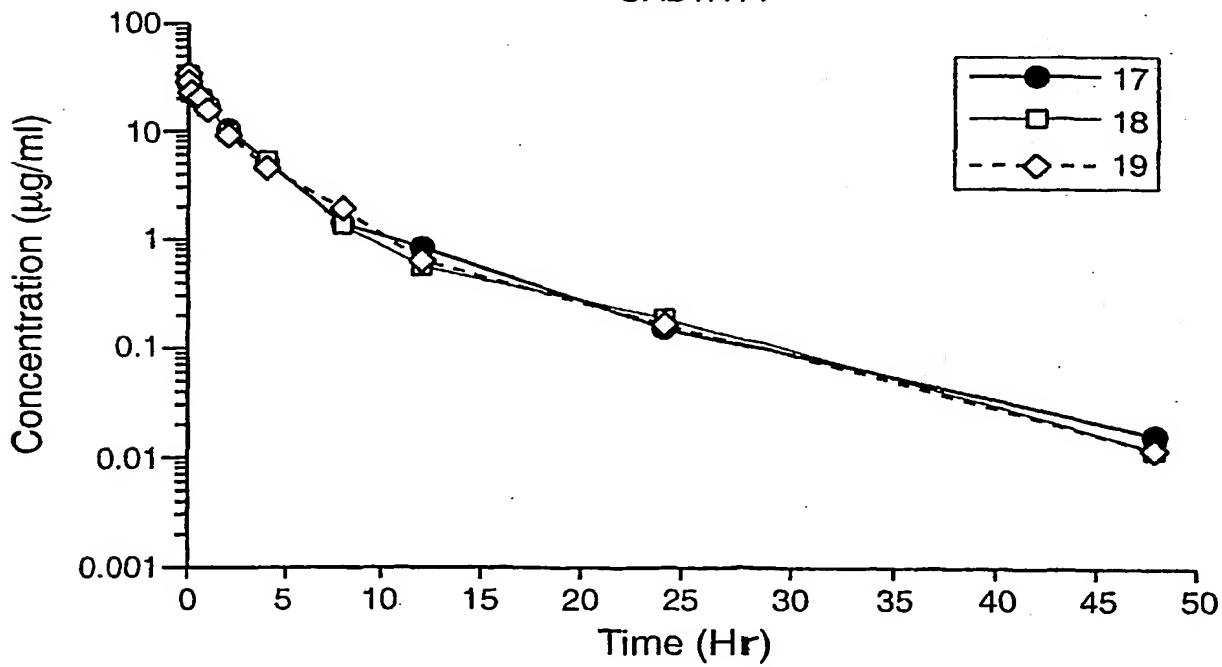


FIG._24A

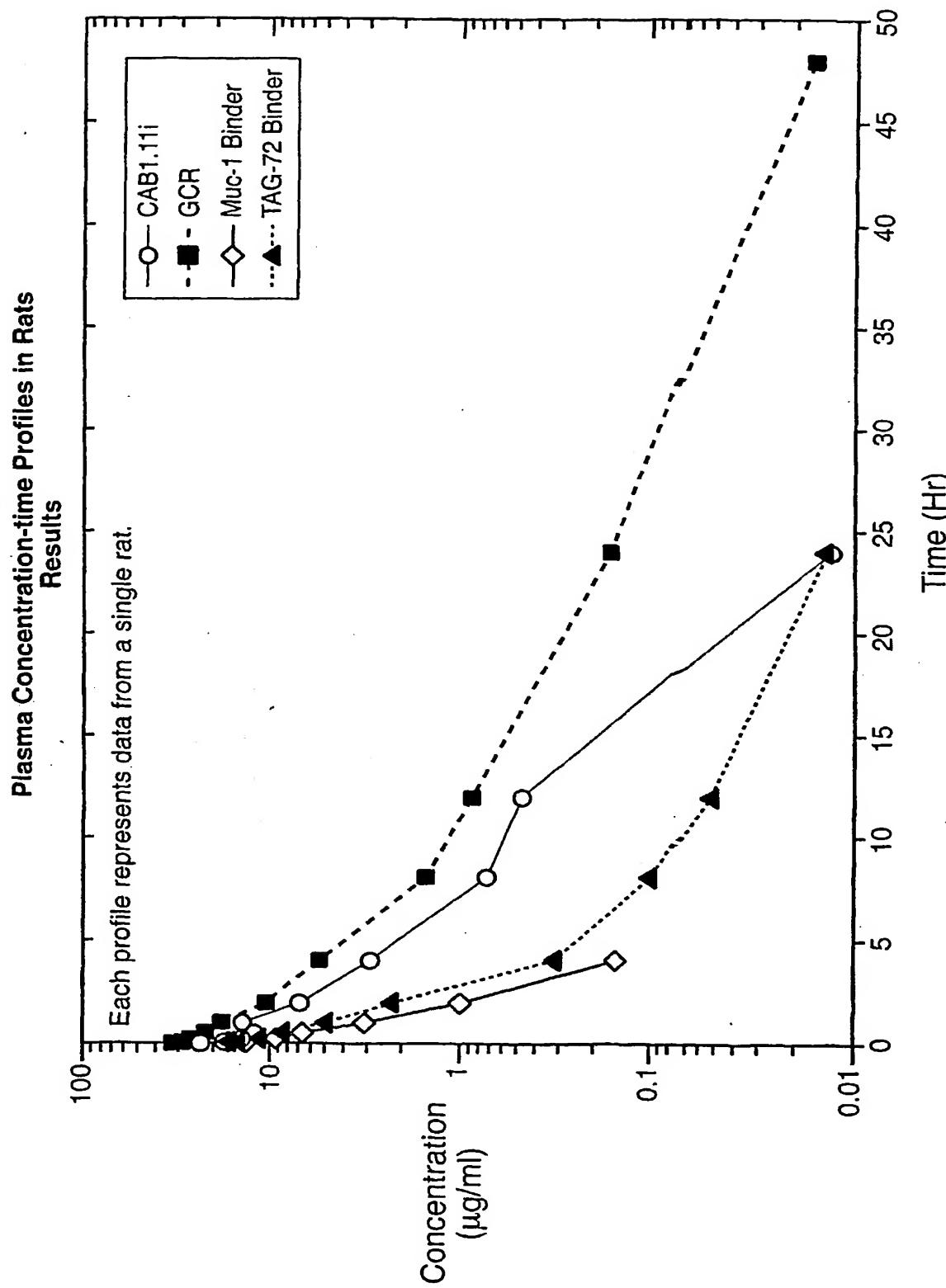
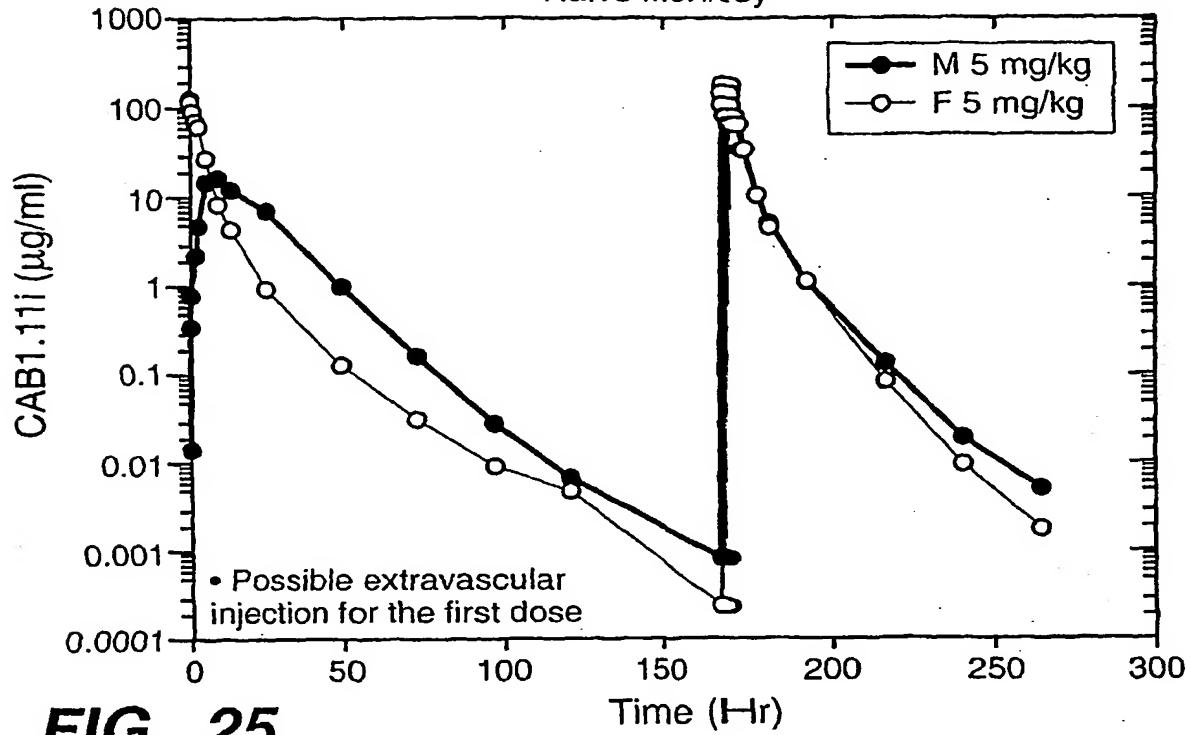


FIG.-24B

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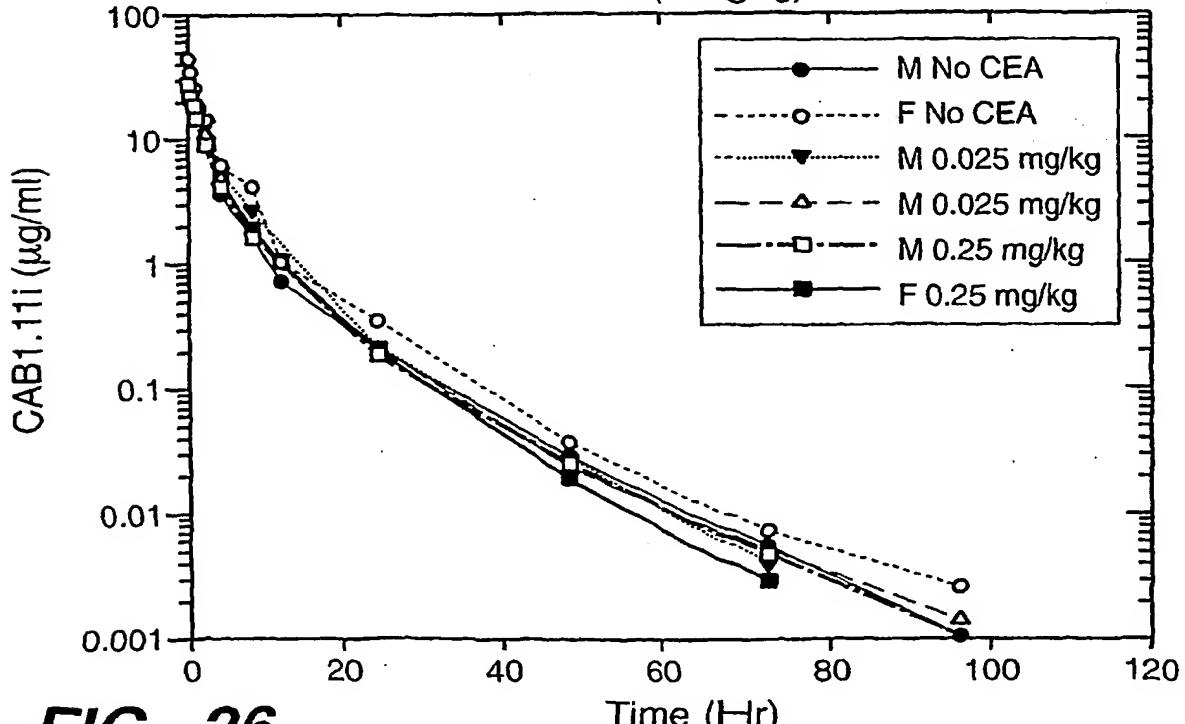
**GCR-8886 Concentration-time Profiles Following 2 Weekly Doses
Results**

Naïve Monkey

**FIG._25**

**CAB1.11i PK Parameter Estimates with or without CEA Coadministration
Results**

CAB1.11i (1 mg/kg)

**FIG._26**

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